

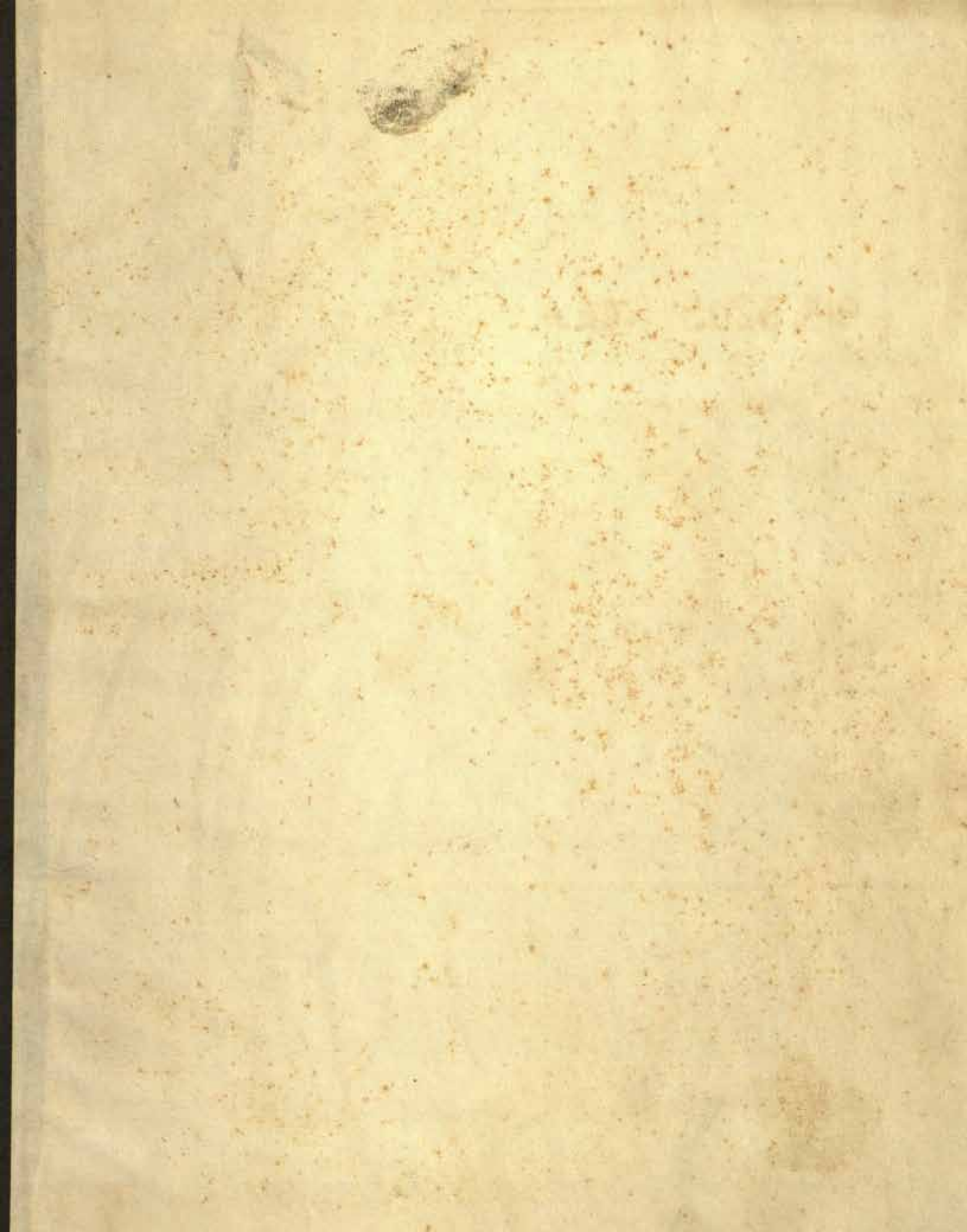
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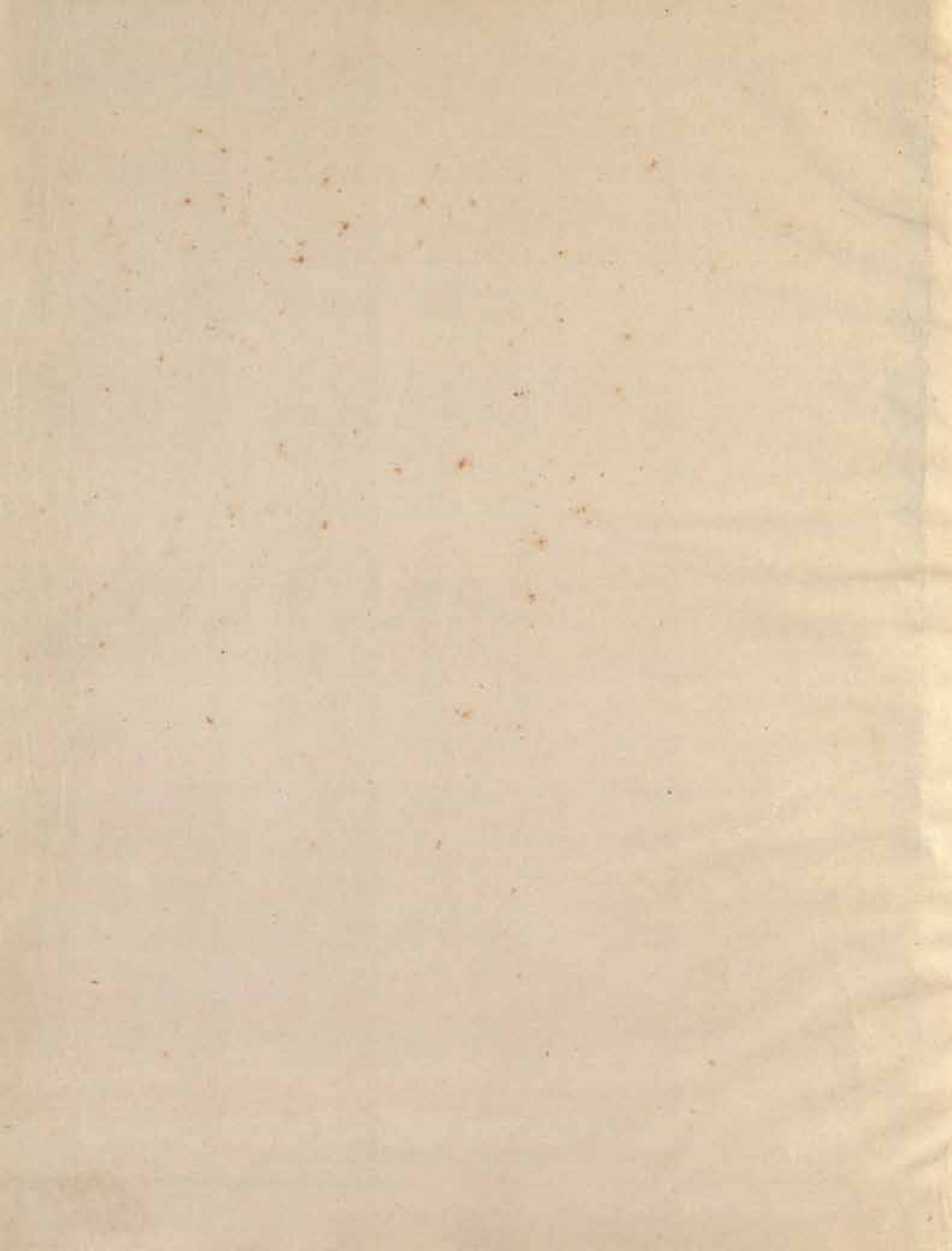
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RHYTON OF ATTIC RED-FIGURED POTTERY
signed by the potter Sotades (about 450 B.C.)
Begarawiyah, Pyramid S.XXIV.

AN OSTRACON DEPICTING A RED JUNGLE-FOWL.

(THE EARLIEST KNOWN DRAWING OF THE DOMESTIC COCK.)

By HOWARD CARTER.

Plate XX, fig. 1.

AMONG the numerous limestone ostraca found in Lord Carnarvon's excavations in the Valley of the Tombs of the Kings at Thebes, No. 341¹ may be said to be of exceptional interest. It depicts in black linear drawing upon a splinter of limestone a male-bird of the genus *Gallus* of ornithologists, and it appears to represent in its early domestic form *Gallus ferrugineus ferrugineus* Gmelin, the Red Jungle-fowl.

It was discovered during the winter season 1920-21, with numerous other ostraca—comprising notes and sketches upon limestone splinters of the workmen of the royal hypogea, in the lower undisturbed stratum between the tomb of Ramesses IX and the Eighteenth Dynasty tomb-chamber wherein the cache of Ikhnaton (Amenophis IV)² was made.

By the various strata above the thin crust of natural detritus covering the bed-rock, strata which comprise chiefly debris from the ancient excavation of the surrounding royal tombs³, this ostrakon may be dated as not earlier than the middle of the Eighteenth Dynasty and not later than the period of the tomb of Ramesses IX of the Twentieth Dynasty, or in other words *circa* 1425—1123 B.C. Certainly it is very improbable that it dates before or after the Theban New Empire (*circa* 1580—1090 B.C.) as the royal and private tombs in this particular locality, Bibân El-Mulûk, belong solely to that epoch, the earliest tomb in the valley being that of Tuthmosis I and the latest the last of the Ramessides.

Thus, we have before us not only the earliest drawing of the domestic cock, but absolute authentic evidence of the domestic fowl in the form of the Red Jungle-fowl being known to the ancient Thebans between the twelfth and fifteenth centuries before our era. And, in all probability, this ostrakon depicts the *genus* if not the actual species of fowl referred to in the famous Annals of Tuthmosis III⁴; wherein are mentioned birds that "bear every day" coming to Egypt among tribute from a country somewhere between Syria and Sinear, *i.e.* Babylonia.

The *Galli* are of purely Asiatic origin, and *Gallus ferrugineus ferrugineus* Gm. appears with little doubt to be the parent stock of the domestic fowl⁵. Its habitat is Farther India and Malaysia, *i.e.* Sumatra, Malay Peninsula, Hainan westwards to Burma⁶.

¹ Sequence number in those excavations.

² Called by Theo. M. Davis the tomb of Queen Tiy.

³ The tombs in the near vicinity belong to: Ramesses II; Meneptah; Ramesses VI; a tomb-chamber of the Eighteenth Dynasty made for the cache of Akhenaten; and Ramesses IX.

⁴ 1501—1447 B.C., according to Breasted's chronology.

⁵ *Vide* DARWIN, *Animals and Plants under Domestication*, I, pp. 233—246.

⁶ Dr P. R. Lowe, of the British Museum (Natural History), has kindly given me the following distribution of the different species and forms of Jungle-fowl: 1. *Gallus ferrugineus ferrugineus* Gmelin, Sumatra, Malay Pen. to Hainan westwards to Burma (introduced into Tahiti, Tonga, and other South Sea

According to the Chinese tradition they received their poultry from the west—probably Burma or the adjacent countries, about 1400 B.C.

Among the sacred books of the East we find in the Institutes of Manu that the tame fowl as food was forbidden, while in the wild state it was allowed to be eaten, indicating that it was domesticated when those laws were written¹. Unfortunately very little is known as to the date of the Institutes of Manu. They are probably much older than their present form which Prof. Buhler² places somewhere between 200 B.C. and 200 A.D.

In the Old Testament apparently no mention is made of the domestic fowl.

According to Alfred Newton³ and Sethe⁴ Jungle-fowl are figured on Assyro-Babylonian gems, but they hardly date earlier than the seventh century B.C. Upon this subject Mr Sidney Smith has kindly given me the following note upon the domestic fowl in Babylonia and Assyria:

"There are several references⁵ in bird-lists and omen-texts of the Kuyunjik collection to a bird, the name of which in Sumerian was written 𒌦𒍪𒀭𒀭𒀭𒀭 meaning the 'egg-bird'. The Sumerian form gave rise to the Accadian *Tarru* and *Tarlugallu*, which became in Syriac ܬܪܠܘܓܐ, *gallus*, cock. The history of the word clearly shows that the cock was known in Babylonia in the early Sumerian period, i.e. before 2500 B.C. The mention of the bird in omen-texts shows that it was subject to the same kind of observation in Babylonia as in Rome⁶. From the syllabaries it appears that it was also known by various epithets, viz. *burruntu*, 'parti-coloured,' *kakabanu*, 'the starry,' and *kudurranu*, 'the crested.'

"The hen was most probably called *kurkû*⁷, a bird known to be a domestic fowl from frequent references⁸. It was used for festival offerings to the goddess Bau in the time of Gudea⁹, and was kept, as were all the other domesticated birds, in great numbers by the temples.

Islands). 2. *Gallus ferrugineus Murgî* Robinson and Kloss. Pen. of India, N. of the Godavari and E. to Assam. 3. *Gallus ferrugineus bankiva* (Temm.). Java and Lombok. 4. *Gallus lafayetti* Lesson. Ceylon. 5. *Gallus sonnerati* Temm. Indian Pen. S. of a line drawn from Mt. Abou to the mouth of the Gadavari.

¹ Vide ALFRED NEWTON, *Encycl. Brit.*, xi ed., x, p. 760.

² *Sacred Books of the East*, vol. xxv; also see *Encycl. Brit.*, xi ed., xiv, p. 435.

³ ALFRED NEWTON, *op. cit.*

⁴ K. SETHE, *Festschrift Friedrich Carl Andreas*, Leipzig, 1916, pp. 109—116.

⁵ Collected and discussed by HUNGER, TIEROMINA, *Mitteilungen der Vorderasiatischen Gesellschaft*, 1908, pp. 42 ff.

⁶ GENOUILLAC, *Revue d'Assyriologie*, vol. III, p. 159.

⁷ See e.g. LIVY, xxii, 1, and PLINY, x, 25.

⁸ Smith suggests: "Perhaps from a fancied resemblance of the points of the crest to rays of light"; but Dr Lowe has pointed out to me that it was probably *Gallus sonnerati* Temm., of which the characteristic markings are tiny spots like stars.


⁹ So with MEISSNER, *M.F.A.G.*, 1904, No. 3, p. 18, against Hunger, *loc. cit.*; this view is certain owing to phonetic readings on an unpublished Tablet Sm 644.

¹⁰ THUREAU-DANGIN, *Sumerische und Akkadische Königsinschriften*, p. 80, Anmerkung (i), doubts the identification with Syriac ܬܪܠܘܓܐ, *grus*, crane, accepted by JENSEN, *Mythen und Epen*, p. 501. The rendering "hen," generally accepted, seems to have been first suggested by Winckler in his *Sargon*.

¹¹ See MUSS-ARNOLT, *Dictionary*, *sub voce*, and the references in MEISSNER, *Babylonien und Assyrien*, pp. 222, 223.


¹² THUREAU-DANGIN, *op. cit.*, pp. 80—81.

"The only representations of a cock in Babylonian art known to me are on a cone-shaped seal with oval base, illustrated in Layard, *Nineveh and Babylon*, p. 538, reproduced in Meissner, *Babylonien und Assyrien*, p. 222, Abb. 53, and on a cylinder seal, also illustrated in Layard, now exhibited in the B.M., Table Case B, Assyrian Room, No. 89311. Since these seals are probably not earlier than the New Babylonian or Achaemenean period, they are of small importance apart from their interest as showing the religious significance attached to the bird at that time. A small bronze figure of a cock, exhibited in Wall Case 13, Assyrian Room, B.M., No. 103376, is in all likelihood to be attributed to the Parthian period as showing classical influence.

"The inscriptions of Tiglathpileser III¹ mention, in the lists of Median districts, one called  *Mat Tarlugalle* (pl.), 'the land of cocks'; and it is not unreasonable to suppose that this implies that the bird was introduced into Assyria and Babylonia from Persia, in accordance with the Greek name of the bird². It was from Babylonia, clearly, that it was introduced into Syria, since it was there called 'the Accadian³.'"

The ancient Greeks were well acquainted with the Red Jungle-fowl. It is sculptured on the Lycian marbles (circa 550 B.C.) now preserved in the British Museum⁴, and E. Blyth⁵ remarks that it is there represented more as the true Jungle-fowl, the tame *Galli* having a more upright bearing than the wild, the latter carrying their tails in a drooping position⁶. No doubt this is correct, but it must be remembered that in these beautifully executed bas-reliefs the birds in question are there represented fighting, their tails drooped, wings spread, hackles ruffled, in attitude of attack, which can hardly be compared with the common demeanour of a strutting tame cock.

Pindar, the lyric poet of ancient Greece (circa 522—443 B.C.), mentions the species; and Aristophanes, the comic dramatist and poet of Athens (circa 448—385 B.C.), calls it the "Persian bird" (*Περσικὸς ὄρνις*) and jestingly "the Median" (*Μήδος*), which suggests that it was introduced into Greece through Persia, from whence it spread to Europe⁷.

In Egypt, with the exception of perhaps one possible instance identified by Müller, the domestic fowl is nowhere depicted upon the Egyptian monuments. The  "w" bird of the hieroglyphic alphabet has been frequently named by Egyptologists as the chicken or chick of the domestic hen, but by Griffith⁸ as "the young of a partridge or quail." It is without doubt the chick of the migratory quail, which sometimes breeds in the cornfields of Upper and Lower Egypt. From time to time I have had batches of chicks of this bird brought to me by the fellâhin. They exactly resemble in character, colouring, and detail, the alphabetic "w" sign on the monuments.

As I have mentioned above, there appears to be a reference to the Red Jungle-fowl in the famous Annals of Tuthmosis III, which, among other valuable historical data, give a list of tribute for every year. Of the passage in the text that throws light upon our

¹ See ROST, *Keilschrifttexte Tiglat-pileser III, Tontafelinschrift*, ll. 31, 37.

² For this Meissner refers to V. HEHN, *Kulturpflanzen und Haustiere*, 8 Auflage, pp. 326 ff.

³ ZIMMERN, *Akkadische Fremdwörter*, p. 59.

⁴ Archaic Room, frieze No. 82, representing cocks and hens, from the acropolis of Xanthos in Lycia.

⁵ *Ibis*, 1867, p. 157.

⁶ Vide ALFRED NEWTON, *op. cit.*

⁷ See SETHE and NEWTON, *op. cit.*

⁸ F. LL. GRIFFITH, *Beni Hasan III*, p. 8, Pl. II, fig. 15.

THE ELOQUENT PEASANT

BY ALAN H. GARDINER, D.LITT.

AMONG the few literary compositions which have survived from the Middle Kingdom, the tale of the Eloquent Peasant has the distinction of being one of the longest and the most complete. The two fine Berlin papyri which contain the bulk of the text comprise three hundred and seventy-eight lines, if we disregard the overlap, and except towards the end are practically free from lacunae. To this number of lines have to be added fifty-one more, from that Ramesseum papyrus which, by a miraculous chance, has restored to us the lost beginning, not only of the Peasant, but also of the story of Sinuhe. Here then, dating from a period when literary papyri are not wont to show deep-seated corruptions, we have a composition consisting of nearly four hundred and thirty lines, an absolutely invaluable source of information for the grammarian and the lexicographer. But unhappily, much of the book has resisted previous attempts at translation. Twenty years ago scholars were accustomed to stop short after the introductory narrative, the peasant's nine petitions to his judge being deemed wholly untranslatable. At that time, however, Egyptian philological studies were making rapid strides, and a young German student, Friedrich Vogelsang, had the courage to take the story as the theme for his doctoral dissertation (1904). Not many years later, in editing a photographic facsimile of the texts in collaboration with the present writer, he prefixed to it the first attempt at a complete rendering¹. In this first attempt so much of the meaning was elicited with comparative certainty that Maspero was able to include a French version, here and there displaying improvements, in the fourth edition of his *Contes populaires de l'Égypte ancienne*. In 1913 Vogelsang published his revised translation and commentary, a valuable though by no means impeccable piece of work². Since that date the only contributions to the subject have been a valuable review by Grapow³, three short articles of my own⁴, and a very free translation, based on Vogelsang and Maspero, by Sir Ernest Budge⁵.

The new rendering which I venture to submit to the readers of this *Journal* is the outcome of some weeks of close study during the past summer, when an opportunity presented itself of collating the original manuscripts in Berlin. I am deeply conscious of the deficiencies of my effort, and would gladly have added a few more to the notes of interrogation which I have sprinkled so freely over it. There are whole passages where I am

¹ *Hieratische Papyrus aus den königlichen Museen zu Berlin, vierter Band: Literarische Texte des Mittleren Reiches, herausgegeben von ADOLF ERMAN. I. Die Klagen des Bauern, bearbeitet von F. VOGELSANG und ALAN H. GARDINER, Leipzig, 1908.*

² K. SETHÉ, *Untersuchungen zur Geschichte und Altertumskunde Aegyptens*, Band VI. *Kommentar zu den Klagen des Bauern*, von FRIEDRICH VOGELSANG, Leipzig, 1913.

³ *Göttingische gelehrte Anzeigen*, 1913, nr. 12, pp. 735-51. I have found nothing helpful in the article by LEXA, *Recueil de Travaux*, 34, 206-31.

⁴ *Proc. Soc. Bibl. Arch.*, 35 (1913), 264-76; 36 (1915), 15-23; 69-74.

⁵ *The Literature of the Egyptians*, 1914, pp. 169-84. A summary, with some quotations, in BREASTED, *Development of Religion and Thought in Ancient Egypt* (1912), 216-26.

almost certain not to have divined the true meaning; but in offering some sort of translation even of these portions I have acted upon a principle to which I attach the greatest importance: even a wrong idea is better than no idea at all, and progress in translation can only come by presenting to the critics some definite objective to tilt at. I have been at pains to study my predecessors very closely, and may therefore hope to have avoided, as a rule, modifications of the kind which the Germans compactly call *Verschlimmbesserungen*.

To those without knowledge of the Egyptian language some explanation why texts of this sort occasion so great difficulty may be of interest. The meaning of the large majority of the words employed is either already known, or else can be elicited through comparison with other examples; but not the precise nuances of meaning, only the kind of meaning, its general direction and its approximative emotional quality. Taking into consideration the further facts that the absence of any indication of the vowels makes the distinction between the various verb-forms very difficult, and that Egyptian dispenses almost entirely with such particles as "but" "because" "when" "though," it will become evident that texts of a purely moralizing character, where there is no concrete background against which the appropriateness of this or that rendering shows up unmistakably, must present extraordinary difficulties. The only basis we can have for preferring one rendering to another, when once the exigencies of grammar and dictionary have been satisfied—and these leave a large margin for divergencies,—is an intuitive appreciation of the trend of the ancient writer's mind. A very precarious basis, all will admit. Nevertheless, the number of moralizing texts which we now possess is not inconsiderable, and everywhere like thoughts crop up and mutually confirm one another. Some confidence that we have succeeded in fathoming an old Egyptian sentiment may often be gained by noting how well the same sentiment, expressed in different but similar words, fits into other contexts. By slow degrees we are acquiring a fair working knowledge of the psychology of these ancient folk.

The tale is a simple one, and may be left to explain itself. But not so the individual sentences within it. To make these intelligible to the modern mind it would often be necessary to depart so far from literal translation as to lose all the flavour of the original. I have, with few exceptions, preferred to be literal at all hazards, and if the result be inelegant, I would point out that my purpose has been linguistic and psychological, rather than aesthetic. Those who, not unreasonably, object to footnotes will find plenty to complain of here; but the alternative, explanatory glosses interrupting the translation itself at every instant, would in my opinion have been infinitely worse.

The tale of the Eloquent Peasant challenges comparison with the story of Sinuhe, not only because both texts appear to have enjoyed popularity at Thebes during the Twelfth and following Dynasties, but also because the manuscripts are the work of the same scribes and have now found a resting-place in the same museum. But whereas the simplicity of the story of Sinuhe, its conciseness, its variety of mood and its admirable felicity of expression make it a great literary masterpiece, the same praise cannot be given to the tale of the Eloquent Peasant. The narrative portions are indeed straightforward and unobjectionable, but the nine petitions addressed to Rensi are alike poverty-stricken as regards the ideas, and clumsy and turgid in their expression. The metaphors of the boat and of the balance are harped upon with nauseous insistency, and the repetition of the same words in close proximity with different meanings¹ shows that the author was anything

¹ Examples: *irt nwdw* in B 1, 92, 100, 107; *abn*, see below p. 14, n. 1; *msf*, B 1, 117, 119.

but a literary artist. It must not be supposed that the original makes any attempt to convey the natural clumsiness of speech of an ignorant peasant; on the contrary, the tale would lose its whole point if the notion that Rensi was a genuine admirer of the peasant's eloquence were thus undermined.

So far as possible, my translation follows the longer Berlin text (B 1); only where this fails or is unsatisfactory are R (the Ramesseum papyrus) and B 2 (the second Berlin text) employed.

INTRODUCTORY NARRATIVE.

There was once a man whose name was Khunanūp, a peasant of the Sekhet Ḥmūet¹; and he had a wife whose name was [Ma]rye.

And this peasant said to her his wife: "Behold I am going down into Egypt to [bring] food thence for my children. Go now, measure out for me the corn which is in the barn, the remainder of [last harvest's (?)] corn." Then he measured out to her [six (?)]² gallons of corn.

R 5 *And this peasant said to his wife: "Behold, [there are left over (?)]² twenty gallons of corn to (be) food for thee and thy children; but make thou for me these six gallons of corn into bread and beer for every day in which [I shall be travelling (?)]⁴.*

R 10 *So this peasant went down into Egypt, after that he had loaded his asses with rushes, rmt-plants, natron, salt, sticks of.....tyw, rods of Te-ehew⁵, leopard skins, wolf furs,*

R 20 *bamboo (?)⁶, pebbles (?), tnm-plants, hprwr-plants, sšhwt, sšskwt, mšwt-plants, snwt-stones,*

R 30 *ḥb[š]w-stones, lbsj-plants, inbi-plants, doves, nṛw-birds, wgs-birds, wbn-plants, tbsw-plants,*

R 35 *gngnt, earth-hair, inst,—full measure of all the goodly products of the Sekhet Ḥmūet. And this peasant departed southward toward Nenēsu⁷ and arrived in the vicinity of Per-fiofi to*

R 40 *the north of Medēne⁸; and he found a man standing on the river-bank named Dhutnakht, the son of a man whose name was Isry, a vassal of the high steward Rensi, the son of Meru.*

And this Dhutnakht said, when he saw asses belonging to this peasant which were desirable in his heart: "Would that I had some potent idol⁹ that I might steal away the belongings of

R 45 *this peasant withal!" Now the house of this Dhutnakht was on the riverside path, which was narrow and not broad, equal to (?) the breadth of a loin-cloth; and the one side of it was under water, and the other under corn.*

¹ The modern Wādy Naṭrān ("Valley of Salt"); the old Egyptian name is identical in meaning.

² The traces do not suit "six," but this or some number approximating it seems needed. It is not to be imagined that the peasant withdrew from the barn more than was required for his own immediate purposes. The hitherto accepted interpretation of the number in R 5 as 2 instead of 20 (on this point see *Proc. S.B.A.*, 14, 425) makes the peasant treat his wife with incredible meanness.

³ Restoration very doubtful; [sp] n. t.?

⁴ Undecipherable traces; this conjecture, which is due to Maspero, seems superior to Vogelsang's "[that I may live] thereon."

⁵ *Tt-ḥw*, the Oasis of Farāfra.

⁶ *Nš* depicted *Bersb.* II, 16.

⁷ *Nn-nsw*, later Herakleopolis Magna, the modern Ehnās. This was the capital of the Ninth Dynasty to which Nebkaurē⁸, the Pharaoh of our tale (B 1, 73), belonged.

⁸ Spiegelberg proposed (*Or. Litt. Zeit.*, 1920, 259), on rather slender grounds, to identify *Mdnt* with *Atfīb*; that town is, however, on the wrong side of the Nile for a traveller coming from the Wādy Naṭrān.

⁹ *I.e.* would that I had some magical means. The word "potent" is added from the duplicate in the Butler papyrus.

And this Dhutnakht said to his servant: "Go, bring me a cloth from my house." And it
 R 50 was brought to him straightway. Then he stretched it over the riverside path, so that its fringe
 rested on the water and its hem on the corn¹. Then came this peasant along the public road.

B 1, 1 And this Dhutnakht said: "Have a care, peasant; wouldst² tread on my garments?"

And this peasant said: "I will do thy pleasure; my course is a good one." So he went
 up higher.

5 And this Dhutnakht said: "Shalt thou have my corn for a path?"

And this peasant said: "My course is a good one. The bank is high and (our only)
 course is under corn; and still thou cumberest our way with thy garments. Wilt thou then
 not let us pass along the road?"

10 Thereupon³ one of the asses filled its mouth with a wisp of corn. And this Dhutnakht
 said: "Behold, I will take away thy ass, peasant, because it is eating my corn. Behold, it
 shall toil (?) because of its offence."

And this peasant said: "My course is a good one. Only one⁴ has been hurt. I brought
 15 my donkey on account of its endurance (?),⁵ thou takest it away for the filling of its mouth
 with a wisp of corn. Nay, but I know the lord of this domain. It belongs to the high steward
 Rensi, the son of Meru. It is he who restrains every robber throughout the entire land; and
 shall I then be robbed in his (own) domain?"

20 And this Dhutnakht said: "Is this the proverb which people say: the poor man's name is
 (not) pronounced (save)⁶ for his master's sake? It is I who speak to thee, and it is the high
 steward whom thou callest to mind!"

Then he took up a rod of green tamarisk against him⁷ and belaboured all his limbs there-
 with; seized his asses and drove (them) into his domain.

25 Thereupon this peasant fell a-weeping very bitterly for the pain of that which was done to
 him. And this Dhutnakht said: "Lift not up thy voice, peasant. Behold, thou art bound for
 the abode of the Lord of Silence!"

And this peasant said: "Thou beatest me, thou stealest away my goods; and then takest
 30 thou the complaint from my mouth! Thou Lord of Silence, give me back my chattels, so that
 I may cease to cry out to thy disturbance!"

And this peasant tarried for ten long spaces over ten days making petition to this Dhutnakht,
 but he paid no heed to it. So this peasant departed to Nenēsu in order to make petition to the
 high steward Rensi, the son of Meru, and found him as he was coming forth from the door of
 35 his house to go down into his barge belonging to the judgment hall¹⁰.

And this peasant said: "Would that I might be permitted to rejoice thy heart with this

¹ Which of the two words means "fringe" and which "hem" is uncertain.

² Reading *is* with R 53. In the preceding phrase *hrw* is probably the abstract noun from *hri* "be calm";
ir hrw would then be practically equivalent to "be cautious."

³ R 59 gives: "He had just reached saying this word, when one of the asses, etc."

⁴ *Scil.*, wisp of corn.

⁵ The determinative of motion seen in *šmty* R 64 makes it highly probable that the word for "expedi-
 tions" or the like (see Vog.'s note) is here somehow involved. There is clearly an antithesis, and if we assume
 that *šm*, *šmty* means "power of withstanding long travel" the comment obtains a good point.

⁶ In English the insertion of "not...save" seems almost essential to make the sentence intelligible;
 even so the application of the proverb is poor, since the peasant has named only the master, not the man.

⁷ *R-f*, not the particle *rf* (Peet verbally); this view is proved correct by Westcar, 12, 16.

⁸ Cf. *ie-fr ḥrē* in late Egyptian. Dhutnakht seems to threaten the peasant with death.

⁹ Lit. "and thou be startled (?)."

¹⁰ I.e. the official boat of the court-house.

narration. Were it possible that a servant of thy choice might come to me, so that he might bear tidings from me to thee concerning it?"

40 So the high steward Rensi, the son of Meru, caused a servant of his choice to go in front of him² in order that he might bring tidings from this peasant concerning this matter in its every aspect. Then the high steward Rensi, the son of Meru, laid an information against this Dhutnakht before the magistrates who were with him.

And they said to him: "Probably it is some peasant of his who has come to someone else
45 beside him. Behold, that is what they use to do to peasants of theirs who have come to others beside themselves³. Is it a case for one's punishing this Dhutnakht on account of a trifle of natron and a trifle of salt? Let him be commanded to replace it, so that he may replace it."

50 But the high steward Rensi, the son of Meru, held his peace and answered not these magistrates, neither did he answer this peasant.

FIRST PETITION.

Then this peasant came to make petition to the high steward Rensi, the son of Meru, and said: "O high steward, my lord, greatest of the great, ruler of that which is not and of that
55 which is⁴! If thou go down to the sea of justice⁵ and sail thereon with a fair breeze, the sheet (?) shall not strip away thy sail, thy boat shall not lag, no trouble shall befall thy mast, thy yards (?) shall not break, thou shalt not founder (?) when thou touchest (?) on the land.
60 The current shall not carry thee off, thou shalt not taste of the evils of the river, thou shalt not see a frightened face. The darting fish shall come to thee, and thou shalt attain of the fattest fowl. Forasmuch as thou art a father for the orphan, a husband for the widow, a brother for
65 her that is put away, an apron for him that is motherless⁶. Let me make thy name in this land in agreement with (?) every good ordinance⁷—a ruler void of rapacity, a magnate void of baseness, a destroyer of falsehood, a fosterer of justice, one who comes at the voice of the caller. I speak; mayst thou hear. Do justice, thou praised one praised by them that are
70 praised. Destroy (my) needs⁸, behold I am heavy-laden. Prove me, behold I am in a loss."

TRANSITION TO THE SECOND PETITION.

Now this peasant made this speech in the time of king Nebkaur⁹, the justified. And the high
75 steward Rensi, the son of Meru, went before His Majesty and said: "My lord, I have found one of these peasants who is eloquent in very sooth, one whose goods have been stolen away; and behold, he is come to make petition to me concerning it."

¹ Lit. "so that I might send him to thee concerning it." Similarly below in B 1, 40-1.

² The peasant and the servant go on ahead of Rensi by land, so that Rensi is able at once to lay the matter before his colleagues on the bench.

³ From this passage we learn that the peasants from the oases had each his own particular patron in Egypt, and paid dearly for it if they ventured to offer their services elsewhere. After "beside themselves" B 1, 46 meaninglessly repeats "behold, that is what they use to do."

⁴ A common rhetorical phrase for "everything."

⁵ The following lines seem to be nothing more than an elaborate metaphor for Rensi's successful and prosperous administration of justice, which will find its own reward.

⁶ *Sgræ*, see NAV., *Mythe d'Horus*, 7, 5.

⁷ As we might say: a shirt for him who has no mother to clothe him.

⁸ The sentence is obscure, but the idiom *r hp* "according to law" suggests that *r* has this sense here, and not "superior to" as others have supposed. Perhaps *ra* means here "attributes," and *hp* the "standard" with which these should agree: a ruler should be void of rapacity, and so forth.

⁹ Emend *stew* as in R 114.

Then said His Majesty: "As thou lovest to see me in health, cause him to linger here, without answering aught that he may say. For the sake of his continuing to speak, do thou
 80 keep silence. Then let it be brought to us in writing, that we may hear it. But provide for his wife and his children; behold, one of the peasants shall come to Egypt concerning the indigence of his house¹. Further, provide for this peasant himself. Thou shalt cause him to be given food, without letting him know that it is thou who hast given it to him." So they gave him ten
 85 loaves and two jugs of beer every day. The high steward Rensi, the son of Meru, used to give it to a companion of his, and he used to give it to him. Then the high steward Rensi, the son of Meru, sent to the mayor² of the Sekhet Hmüet concerning the making of food for the wife of this peasant, three gallons of wheat (?) every day.

SECOND PETITION.

Then this peasant came to make petition to him a second time, and said: "O high steward,
 90 my lord, greatest of the great, richest of the rich, whose great ones have one greater, whose rich ones have one richer. Thou rudder of heaven, thou beam of earth³, thou plumb-line that carries the weight⁴. Rudder, diverge not; beam, tilt not; plumb-line, do not swing awry. A great lord takes (only) of that which has no lord, pillages (only) one⁵. Thy sustenance is in thy

¹ R *tt* must be taken with *in*, and mean "to Egypt," whence the required provisions were necessarily obtained.

² *Ht*-*ht*, the name regularly given to the headmen of villages, persons of lesser importance than the *hty*-*c* or "counts"; the term is almost translated in the modern Arabic *sheikh el-beled*.

³ Commonplaces of Egyptian imagery. *Stw n tt*, of the king, *Inscr. dédié.*, 37; so too *stw n pt*, *hmw (n tt)* in *Urk.*, iv, 16. Grapow, from whose valuable note these parallels are taken, is inclined to press the comparisons too far; the rudder is indeed that which guides, and the beam is a firm and level support (cf. *Pap. Leyd.*, 347, 5, 9); but it need not be supposed that heaven and earth, which together constitute the universe, were definitely conceived of as a ship and as a house respectively.

⁴ *Hty* is the "plumb-line" suspended just behind the tongue of the balance and serving to control the straightness of this; the manipulator is often shown steadying the plumb-line with one hand, and the scales with the other. For Egyptian balances generally see Ducros in *Ann. du Service*, 9, 32 foll.; 10, 240 foll. The simile of the balance of justice, which the western world doubtless owes to Egypt, seems to appear first in "that balance (*mhst*) of Rē^c in which he weighs justice," LACAU, *Textes rel.*, 37, 3. The vizier is called "the plummet controlling the two regions, the post (*wtst*) of the balance (*mhst*) of the two lands," PIEHL, *Inscr. hiér.*, III, 82. The entire balance was named the *mhst* (*Peas.*, B 1, 149), while *iwsw* (B 1, 96) is apparently the essential part of it consisting of the "beam" or "arms" (*rmnw*, B 1, 166) and the "scales" (*hskw*, B 1, 323). The weight used in the scales was called *dbn* (B 1, 166), but that at the end of the plumb-line (*hty*) is termed *th* (B 1, 96), or, as here, *wdnw* (this last also *Pyr.*, 1993). The comparison of the administration of justice with the action of a balance is much employed in our text. Some verbs used in connection therewith are *ft* "carry" the things weighed (B 1, 324) and hence "to weigh," *gst* the "tilting" of the *iwsw* (here hardly intelligible otherwise than as "beam," B 1, 96), *nmw* the "slanting" or "deflection" of the "plummet" (B 1, 96) and *ist nwdw* "to make swingings" or "oscillations," of the plumb-line (B 1, 92); the antithesis to the three last seems to be *kt* "to be straight," cf. the description of the vizier Rekhmerē^c: "balance (*iwsw*) of the entire land, keeping aright (*smty*) their hearts in accordance with the plumb-line (*ht htty*); those with vacillating hearts (*nwdw-ib*), who have no straightness (*iwtyw kt-an*), then the rod (*n*) curbed" (*Urk.*, iv, 1076). Lastly, *rdi hr gs* apparently means to place more weight in one scale than is due, i.e. to act partially, lit. "to place on (one) side," see B 1, 98; the balance itself is the agency which does this in B 1, 313. It is characteristic of the poverty of our author's vocabulary that he uses the verb *gst* (B 1, 92) and *nwd* (B 1, 100) in this very same passage in contexts where there is no allusion to the balance.

⁵ Obscure; I take the sentence to mean that the truly great lord never annexes anything which has already a possessor, and deprives no one of anything except himself alone. Another possibility is to construe

house, a pint of beer and three loaves¹. What canst thou expend in nourishing thy clients?
 95 A mortal man dies along with his underlings; and shalt thou be a man of eternity?

"Is it not wrong, a balance which tilts, a plummet which deflects, a straightforward man who is become a shirker? Behold, justice escapes (?) from beneath thee, being expelled from its place; the magistrates make trouble; the norm of speech inclines to one side; the judges
 100 snatch at what he has taken(?)². This means that a twister of speech from its exact sense makes travesty with it(?)³: the breath-giver languishes on the ground; he who takes his ease causes men to pant⁴; the arbitrator is a spoiler⁵; the destroyer of need commands its making; the town is its (own) flood; the redresser of wrong makes trouble—"

And the high steward Rensi, the son of Meru, said: "Is thy possession a greater matter in thy heart than that my servant should carry thee off?"
 105 And this peasant said:—"the measurer of the corn-heaps converts to his own use; he who should render full account to another filches his belongings; he who should rule according to the laws commands to rob. Who then shall redress evil? He who should destroy poverty (?) acts perversely⁷. One goes straight onward through crookedness⁸, another gains repute through harm. Dost thou find (here aught) for thee(?)⁹?"

nb as vocative, and to understand *hr w* as "selfishly": "O lord great in taking, etc., plundering for (thyself) alone"; but several objections to this might be offered.

¹ The argument appears to be: thou canst never exhaust thy treasure, for a man's actual needs are small, and thou hast enough and more than enough to enable thee to feed all thy clients. Or dost thou accumulate wealth in the futile hope that thou mayst live for ever? But master and servant must die alike.—The *hwe* is about four-fifths of a pint.

² If this rendering, based on an uncertain reading, is correct, "he" must be Rensi, just alluded to under the metaphor of "the norm of speech." *Tp hsb* is apparently the "standard" or "norm" in speaking, writing or calculation; see especially *Rhind*, title; *Ptahh*, (ed. DÉVAUD), 48, 227. Below in B 1, 147, 162, etc., I have rendered it by "rectitude."

³ Lit. perhaps: "it is the fact that (*pw*) the perverter of speech in its exactitude makes a swinging (*wed*) with it." From the entire context it seems evident that what the author wishes to express is that to speak of partial judges and greedy assessors involves a contradiction in terms. The next few sentences (down as far as B 1, 108) give instances where the action or epithet ascribed to a thing contains a diametrical contradiction of its name.

⁴ *Vog*'s attempt to make *swfw* a transitive is contrary to the evidence; and to interpret *glt* as such in the absence of an object is intolerably hard. There is no real self-contradiction in treating others in a certain way, and behaving otherwise oneself; but there is at least inconsistency, and this seems good enough for Egyptian logic. *Rdl t'w*: the Pharaoh was said to "give breath" to his subjects, and doubtless the same metaphor might be applied to any great noble.

⁵ Lit. "the divider (of inheritances?) is one despoiling."

⁶ Rensi interrupts with a grim question: which is the more important to thee, the property thou art claiming or the certainty of the bastinado if thou persist in thy complaints? The peasant goes on with his own idea, not paying the least attention to Rensi's interruption.

⁷ An alliteration; "acts perversely" is *hr lrt wdw*; translated "swings awry" in B 1, 92; see too B 1, 100.

⁸ *Hbb* is connected with a word *hbb* for "scythe" (*Urk.*, v, 161) and comes from a stem meaning "bent" or "crooked"; so of a crooked nose *Pap. Smith*, 5, 16, 21, and compare *hbt* the bent appendage of the crown of Lower Egypt. *Hbb* evidently means "crookedness" alike here and in *Adm.*, p. 107 (Pl. 18, verso 5); and is determined with the scythe, the teeth of which are very clearly marked; in the *Peasant* example, for some reason obscure to us, two scythes are shown.

⁹ A doubtful sentence, possibly meaning: dost thou find any application to thee in all this description?

- "Redress is short, trouble is long". A good action comes back to its place of yesterday.¹
- 110 Such is² the precept, 'Do to the doer so as to cause him to do'; this is (like) thanking a man for what he does, the parrying of a thing before (its) casting, the order (given) to a craftsman. Would that an instant might destroy—make upheaval in thy vineyard (?), minish of thy birds, lay low among thy wild fowl³. A seer is turned blind, a hearer deaf, a ruler is become unruly⁴.
- 115 "Thou....., hast thou ever.....? What wouldst thou do.....? Behold, thou art strong and powerful. Thine arm is active, thy heart is rapacious. Mercy has passed thee by; how sorrowful is the poor man who is destroyed by thee⁵. Thou art like a messenger from the
- 120 Crocodile-god⁷. Behold, thou surpassesst the Lady of Pestilence⁸. If thou possessest nought, then she possesseth nought; if nought is owing from her, then nought is owing from thee; if thou doest it not, then she does it not. He who has bread (?)⁹ should be (?) merciful, the criminal may be (?) hard. Thefts are natural to him who has no possessions, and the snatching at possessions by the criminal. An ill affair, but inevitable (?)¹⁰. One must not level reproach
- 125 at him; it is but seeking for himself¹¹. But thou art sated with thy bread, and drunken with thy beer; thou art rich.....all..... The face of the steersman is to the front; (yet ?) the boat diverges as it pleases. The king is indoors, the rudder in thy hand; and trouble is spread in thy vicinity. The (task of the) petitioner is long, parting lags heavily¹². What signifies¹³ he

¹ These words, first rightly interpreted by GUNN, *Rec.* 39, 102, strike the keynote of the entire paragraph. Injury lasts long, redress is but the matter of a moment. A noble act finds its reward to-morrow, and obedience to the precept to act fairly with a view to receiving fair treatment in return—the peasant is naively oblivious of the cynicism of this ethical standpoint—is no less practical and useful a mode of conduct than the giving of thanks, the anticipation of a blow, and the necessity of giving an order before the craftsman can execute it. If only Rensi could be diverted from his sports for a single instant all would be well; for now he is become blind and deaf, utterly heedless of his official duties.

² Memory or forgetfulness of "yesterday" are the usual Egyptian ways of describing gratitude or ingratitude.

³ Lit. "it is indeed." Similarly, the three comparisons used to illustrate this proverbial maxim are introduced simply by "it is."

⁴ Vogelsang and others have thought that in this passage the peasant wishes that Rensi might suffer what he himself is suffering; cf. the passage *Adm.*, 13, 5. This view does not take sufficient account of the word *st* "moment." Surely what is wished is that Rensi could be prevented for a single moment from giving all his attention to his amusements, a theme which we shall find elaborated below in the fourth petition (B 1, 205 foll.).

⁵ *Pr* followed by the old perfect "to turn out...." cf. *Ebers*, 100, 21; 101, 6; 102, 5; and sim. + noun, Louvre C 14, 8. *Sšmne*, *stnmw*, evidently paronomastic; *stnmw* is really "one who causes to stray."

⁶ These two sentences are quoted from here in B 1, 204-5 below.

⁷ That the Egyptian gods often acted upon mankind through the agency of messengers (*seprtyw*) has not been sufficiently emphasized hitherto; cf. *Book of the Dead*, ed. BUDA, ch. 29, 1; 125, introd. 16 (Nu); *Pap. Smith*, 18, 12. The analogy to the Hebrew *mal'ak* "angel" is obvious and important.

⁸ *Mk tw sst hr*; this new reading is due to Mr Gunn. The Lady of Pestilence is Sakhmet, see my remarks in *Notes on the Story of Sinuhe*, p. 32. The following sentences unconsciously contradict the statement that Rensi surpasses the dire goddess Sakhmet, for they imply that Sakhmet and Rensi are similar in all respects—in their qualities, their failings, and their actions.

⁹ Dévaud (*apud* GRAPOW) reads *st*, whether rightly or not I am not sure.

¹⁰ Is *šw* an abstract noun meaning "emptiness" "default" ?

¹¹ I owe this rendering to Mr Gunn. The argument is: one may excuse a needy man for his thefts, but not a man so rich as the high steward.

¹² For *tw* and *wdn* in parallelism, see *Adm.*, p. 107. *Fdē* means "sunder" "divide" and here probably refers to the parting of petitioner and judge, a topic alluded to with other terms (*iwet*, *rwet*) in B 1, 254-5.

¹³ Lit. "is." People are beginning to ask, who is yon man who tarries so long with the high steward ?

130 *who is yonder, men will be asking. Be a shelter, that thy coast may be clear; behold, thy habitation is infested (?)¹. Let thy tongue be directed aright, do not stray away. The limb of a man may be his perdition (?)².*

135 *"Speak no falsehood, take heed to the magistrates. It is a basket whichs judges³; the speaking of lies is their herb, so that (?) it may be light in their hearts. Most instructed of all men, wilt thou know nothing of my circumstances? Destroyer of every water's need (?), behold I have a course without ship. Guider to port of all who are drowning, rescue one who is wrecked. Rescue me(?)....."*

THIRD PETITION.

140 *Then this peasant came to make petition to him a third time, and said: "O high steward, my lord! Thou art Re⁴, the lord of heaven, in company with thy courtiers. The sustenance of all mankind is from thee, even like the flood. Thou art Ha⁵py⁴ who maketh green the*
 145 *meadows and furnisheth the wasted tracts. Restrain the robber; take counsel for the poor man; become not an inundation against the petitioner. Take heed to the approach of eternity⁶. Will to live long, according to the saying: 'the doing of justice is the breath of the nose.' Deal punishment upon him who should be punished, and none shall resemble thy rectitude.*
 150 *Does the balance deflect? Does the stand-balance incline to one side? Does Thoth show leniency? (If so,) then mayst thou work trouble. Make thou thyself a seconder⁷ of these three; if the three show leniency, then do thou show leniency. Answer not good with evil; put not one thing in place of another⁷. How doth speech grow more than a rank weed⁸, more than suits the smell! Answer it not, (then) trouble is watered so as to cause a coating (?) to*
 155 *grow (?). There have been (?) three times (?) to cause him to act (?). Guide thou the helm according to the sheet (?), stave off (?) the inundation according to (?) the doing of justice. Beware lest thou drive ashore (?) at the helm-rope (?). The true balancing of the land is the*

¹ The image here evoked appears to be that of a river bank subject to the depredations of crocodiles, against which a booth (?) called *ibw* might serve as a refuge. For *ibw* as a refuge against the crocodile, see below B 1, 179, 223, and probably also 297. In Egyptian imagery the impartial judge is a refuge, the greedy judge a voracious crocodile; for the latter see below B 1, 178—181, 223, and particularly *Ptahhotpe*, ed. DÉVAUD, 168. The verb *in*, of which Vogelsang has collected the examples *A. Z.* 48, 164—7, appears to mean "infested with crocodiles." *Sub mryt* appears from *mryw sub* in *Urk.*, IV, 656 to be a semi-proverbial expression.

² Lit. "it is the *thue*-worm (?) of a man, a limb of him"; i.e., perhaps, his tongue may be his undoing.

³ *Mndm* evidently means a basket for fruit and the like, see *Urk.*, IV, 762, 5; 763, 8. Perhaps *sm* refers to the "vegetable" or "herb" with which it might be filled. In this case the simile would mean that the magistrates show a preference for telling lies, that being a lighter burden than strict adherence to truth and justice.

⁴ The Nile God.

⁵ In connection with the following, *nḥḥ* "eternity" appears to mean "death" and all that lies beyond it; only the doing of justice can ensure long life.

⁶ Lit. "a second," i.e., "peer" "equal." I render "seconder" to preserve the play upon the numerals.

⁷ This precept is given also in the maxims of *Ptahhotpe*, ed. DÉVAUD, 609; and a noble says in reference to his performance of the king's commands that he "never put one thing in the place of another," *Brit. Mus.* 614, 9.

⁸ *Smyt*, doubtless some quick-growing and evil-smelling weed. The peasant here seems to turn to the contemplation of his own speech, which grows in proportion to the indifference shown to him; three times already he has been forced to speak. Interpretation becomes very difficult and doubtful at this point.

⁹ Can this possibly mean: guide thy ship as the wind demands, i.e. grant my plea in the recognition that otherwise I shall go on talking like an inundation!

- 160 doing of justice. Speak not falsehood, being great. Be not light, being heavy. Speak not falsehood; thou art the balance. Shrink not away; thou art rectitude. Behold, thou art on one level with the balance; if it tilt, then thou shalt tilt. Do not diverge but guide the helm¹.
- 165 Pull upon the helm-rope. Take not, but act against the taker². That great one is not great who is rapacious. Thy tongue is the plummet, thy heart the weight, thy two lips its arms³. If thou veil thy face against the violent, who then shall redress evil⁴?
- 170 "Behold, thou art a wretch of a washerman, one rapacious to damage a companion, forsaking (?) his partner (?) for the sake of his client; it is a brother of his who has come and fetched⁵.
- "Behold, thou art a ferryman who conveys across him who has a fare; a straight-dealer whose straight-dealing is dubious⁶.
- "Behold, thou art a head of the bakeries (?) who does not suffer one empty (?) to pass by in default (?)⁷.
- 175 "Behold, thou art a hawk⁸ to the common folk, living upon the meanest of the birds.
- "Behold, thou art a purveyor whose joy is slaughter; the mutilation thereof is not (inflicted) on him.
- "Behold, thou art a herdsman, not..... Thou hast not to pay. Accordingly thou shouldst (?) show less⁹ of the ravening crocodile, shelter being withdrawn (?) from the habitation of the
- 180 entire land. Thou hearer, thou hearest not; wherefore dost thou not hear? To-day have I quelled the savage one; the crocodile retires¹⁰. What profits it thee that the secret of truth¹¹ be found, and the back of falsehood be laid to the ground? (But) prepare¹² not to-morrow ere it be come; none knows the trouble (that will be) in it."
- 185 Now this peasant spoke this speech to the high steward Rensi, the son of Meru, at the entrance of the judgment hall. Then he caused two apparitors to attend to him with whips, and they belaboured all his limbs therewith.
- Then said this peasant: "The son of Meru goes on erring; his senses¹³ are blind to what he sees, deaf to what he hears, misguided as concerns what is related to him.

¹ In B 1, 91 it was the helm which made *šm*, here the helmsman, and in B 1, 222, the boat; a striking example of the author's carelessness in using words.

² *ʾt* "take" means in effect "rob," as its use in connection with the crocodile (see B 1, 224 and above p. 13, n. 1) indicates.

³ As the text stands, "its" has no noun to refer to; probably the entire sentence has become displaced, and should be inserted after "thou art on one level with the balance" in B 1, 162.

⁴ Repeated from B 1, 106.

⁵ *I.e.* he regards the client as a brother?

⁶ *Fdk* "sundered" "divided up," *i.e.* not to be reckoned upon, unreliable.

⁷ The clue to this obscure sentence is possibly to be found in the adverb *hr-ε* and the fact that *hrt-ε* means "arrears." The *hn-ε* was the department where bread, cakes, etc. were made and delivered daily to those authorized to receive them. The thought may be that this official gives no credit.

⁸ For *tnhr* see SCHÄFER, *Äg. Kunst*², Pl. 18, in a relief from Abuṣīr.

⁹ Lit. "make loss."

¹⁰ The peasant claims to have cowed Rensi and to have checked his rapacity for the nonce. See above, p. 13, n. 1.

¹¹ *Mr-ε*, hitherto translated "justice," sometimes in this text stands in so marked an antithesis to "falsehood" that the rendering "truth" is imperative. To the Egyptian mind the two notions were inseparable. The thought is: Rensi cares nothing that justice, so difficult to discern, should be brought to light.

¹² The peasant seems to warn Rensi against over-confidence in the future: who knows what may happen as a result of his injustice?

¹³ Lit. "face" which is used elsewhere both with *sp* "to be blind" and with *sh* "to be deaf."

190 "Behold, thou art like a town not having a mayor¹, like a company not having a chief, like a ship in which is no commander, like a band of confederates not having a leader.

"Behold, thou art a sheriff² who thieves, a mayor who will accept, a district inspector³ who should repress plundering, but is become a pattern for the criminal."

FOURTH PETITION.

195 Then this peasant came to make petition to him a fourth time, and found him coming forth from the door of the temple of Arsaphes⁴, and said: "Thou praised one, may Arsaphes, from whose temple thou art come, praise thee. Perished is good, there is no cleaving to it⁵; (yea, and) the flinging of falsehood's back to the ground. Is the ferry-boat brought to land? (Then) 200 wherewith⁶ can one cross? The deed must be effected, however unwillingly(?)⁷. Crossing the river upon sandals, is (that) a good (way of) crossing? No! Who pray sleepeth (now) until dawn? Perished is walking by night, travel by day, and suffering a man to attend to his own right cause. Behold, it avails not him who says it to thee: 'mercy has passed thee by; how 205 sorrowful is the poor man who is destroyed by thee'."

"Behold, thou art a hunter who slakes his ardour, one bent on doing his (own) pleasure, harpooning the hippopotami, piercing wild bulls, striking the fish, snaring the birds⁸. There is

¹ See above, p. 10, n. 2.

² Vogelsang strangely says that a title *šnt* is "sonst nicht nachzuweisen." It occurs several times in the "Duties of the Vizier" inscription, *Urk.*, iv, 1105, 10; 1115, 13; 1116, 6 (for better readings see FARINA's edition in *Rend. Accad. dei Lincei*, xxvi (1917), 923 foll.). The correct form of the word seems to be *šntw*, i.e. one concerned with disputes. These officials, together with their "overseers" and with the "district inspectors" (*šny-r w*) have to report to the vizier on cases decided by them (*Urk.*, iv, 1115, 13), and reports of the kind formed a regular item in the daily business of the vizier's diwān (*Urk.*, iv, 1105, 10). Doubtless the cases with which the *šntw* was concerned were similar to those settled by his "overseer" (*šny-r šnt* "overseer of dispute," see MORET in *Rec.*, 17, 44). Of these latter we know a little more: not only had they to settle questions concerning land (*Urk.*, iv, 1093, 2-6), but also they had to deal with thefts (*Pap. Kah.*, 30, 12). This latter fact lends point to the antithesis contained in our passage.

³ See last note.

⁴ *Hry-š-f*, the ram-headed god of *Nenṣu*, the capital where Rensi and the Pharaoh dwelt.

⁵ For *šbt* see *Šin.*, B 159, 258, where the word, identically spelt, forms part of the phrase *šbt-šbt* "interment," literally "joining of the corpse (to earth)." The verb-stem *šb* signifies "join" "unite"; in an unpublished collection of procepts (*Petrie Ostrakon*, 11) *šb m* seems thrice to mean "cling to"; the compound preposition *m-šb* "in the midst of" appears to contain a masculine noun with the meaning of "company" "association" or the like. The peasant describes here the losses and disorder caused by the neglect of justice.

⁶ Emend *m (m)*.

⁷ Reading *šp-r sp m madd*; cf. *m madd-i swt* "though I am unwilling" *Pap. Kah.*, 36, 42; *m madd ib-f* "though his heart is unwilling" *Urk.*, iv, 969, 3; sim. *Ebers*, 70, 24. The construction is difficult, but a good sense is obtained if we suppose the sentence to mean: even if the ferry-boat is out of use, the river must be crossed, however reluctant one may be to attempt the impossibility of crossing on sandals.

⁸ A quotation from B 1, 117-8. *Nn km n* "it profits not"; the literal meaning seems to be "there is not successful achievement to a person" from some cause or other, the cause being described by *iry* in *Peas.*, B 1, 182; *Mill.*, 1, 5, and by a genitive in *Mill.*, 1, 11. Griffith quotes *Piankhi*, 15 for the use of *km* for "achieve success"; see too *Lebensmüde*, 32, where *ptr km-k*, *mhy-k hr* [*cnh*] should be read.

⁹ The peasant toys with the fancy that Rensi is so much addicted to sport that he can spare no time to the administration of justice. The participles *šp*, *st*, *ph* and *šst* graphically describe the very different methods of hunting employed in the four cases. *Hr* "let loose" refers to the relaxing of the cord with the javelin at the end of it after the hippopotamus has been struck; for the mode of hunting the hippopotamus see the description given by Diodorus and my comments *Tomb of Amenemhêt*, 28; and for the term *šp* see *Louvre*, C 14, 11; LACAU, *Textes religieux*, 20, 31. *Ph rmw*, i.e. with the spear.

- none quick to speech who is free from overhaste¹, and none light of heart who can be heavy (in
 210 sinking his) caprice². Be patient that thou mayst discover justice; curb thy choice (?)³ so that
 one who is wont to enter silently(?) may be happy. There is none over-impetuous who practiseth
 excellence, none over-quick (whose) arm is sought. Let thine eyes behold; inform thou thy
 215 heart. Be not harsh in proportion to thy power⁴, lest mischief befall thee. Pass over a case,
 and it will be twain⁵. It is the eater who tastes; one addressed answers; the sleeper sees the
 vision⁶; and as to the judge who ought to be punished, he is the pattern for the criminal.
 220 Fool, behold thou art hit. Duncie, behold thou art questioned. Baler out of water, behold thou
 art entered⁷. Helmsman, let not drift thy boat. Life-giver, suffer one not to die. Destroyer, let
 one not be destroyed. Shade, act not as the sun-heat. Shelter, let not the crocodile seize⁸. The
 225 fourth time of making petition to thee, shall I spend all day at it?"

FIFTH PETITION.

- Then this peasant came to make petition to him a fifth time, and said: "O high steward,
 my lord! The fisher of hwdw-fishes makes....., theyw slays the fish that chances (?)⁹, the
 230 piercer of fishes plays (?)¹⁰ the 'wbb-fishes, the djbhw....., the netter of fish ravages the river.
 Behold, thou art in like case¹¹. Despoil not a humble man of his possessions, a feeble man
 with whom thou art acquainted. The poor man's possessions are breath to him, and one who
 235 takes them away stoppeth up his nose. Thou wast appointed to hear pleas, to decide between
 suitors, to repress the brigand; and behold, what thou dost is to support the thief¹². One puts
 faith in thee, and thou art become a transgressor. Thou wast set for a dam unto the poor
 man, take heed lest he drown; behold, thou art a swift current to him¹³."

SIXTH PETITION.

- 240 Then this peasant came to make petition to him a sixth time, and said: "O high
 steward, my lord! <.....> Every <true judgment (?)¹⁴> lessens falsehood and fosters truth,

¹ Rensi is so much in a hurry that he is unjust. Wcr, cf. mdu r wib, iety wcr-f, Thebes, tomb 110, stela.

² For dms, elsewhere parallel to hrp "sinking" ("suppressing") and to lmn "hiding," see Vogelsang's note; shr ht seems to signify the desires prompted by the body, the lusts. Dms shr-ht means literally "heavy as to device of the body."

³ Vogelsang suggests stpt-k.

⁴ For hft wsr-k, cf. Brit. Mus., 914, 9-10; Proc. S.B.A., 18, 201, 3.

⁵ I.e. will prove twice as troublesome.

⁶ Three instances of cause and effect; as surely as the effect follows the cause in these three cases, so surely will a reprehensible judge prove a pattern to the criminal.

⁷ This apparently means: the more thou seekest to stem my torrent of speech, the more thou art overwhelmed by it; kt(i) appears to be passive. Pst mir has, however, a different meaning below in B 1, 278-9.

⁸ See above, p. 13, n. 1.

⁹ Lit. the corner-fish (ly).

¹⁰ Reading h/c as in B 1, 206. The supposed meaning "play" a fish is rendered probable by the use of this word in the legend to a scene of angling, Beni Hasan, I, 29, quoted by Vogelsang.

¹¹ The foregoing sentences, full of unknown words, appear to characterize the various kinds of fishermen as all equally cruel. Rensi is then compared to a fisherman.

¹² Lit. "it is the uplifting (fue!) of the thief which is done of thee."

¹³ Lit. "his flowing water." The determinative of the man at the end is strictly illogical, belonging only to the subject, not to the predicate in itself.

¹⁴ The scribe appears to have skipped a line in copying his original. The subject of sis-f, lit. "makes light (?)," was probably some neuter notion, to judge from the comparisons which follow. Shpr and sptm may be taken as sdm-f forms with omitted subject; cf. B 1, 112 and with sdm-n-f, B 1, 23-4.

- fosters good and destroys evil; even as satiety comes and ends hunger, clothing and ends
 245 nakedness; even as the sky becomes serene after a high storm, and warms all who are cold;
 even as a fire which cooks what is raw, and as water which quenches thirst. See with thine
 (own) sight: the arbitrator is a spoiler¹; the peace-maker is a creator of sorrow; the
 250 smoother over (of differences)² is a creator of soreness³; the purloiner diminishes justice,
 (while) he who renders full and good account—then justice is neither filched from nor yet
 overflows in excess(?)⁴. (But) if thou takest, give to thy fellow, thou mouther(?)⁵ void of
 straight-forwardness.
 255 "My sorrow leads to separation, my accusation⁶ bringeth departure; one knows not what
 is in the heart⁷. Be not sluggish, but deal with the charge⁸. If thou sever, who shall join⁹?
 The boat-hook (?) is in thy hand like a free (?) pole, when deep water has been found (?)¹⁰. If
 the boat run aground (?) it is pushed off (?); but (?) its freight perishes and is lost (?) on every
 260 (sand-)bank (?)¹¹.
 "Thou art instructed, thou art clever, thou art fair, but not through despoiling¹². (And now?)
 thou takest the likeness (?) of all mankind. Thy affairs are all awry; the perverter of the
 265 entire land goes straight onward¹³. The cultivator¹⁴ of evil waters his plot with wrongdoing so
 as to make his plot grow with falsehood, so as to water trouble for eternity(?)."

¹ Repeated from B 1, 101. This and the following sentences describe what actually is, in strong contrast with the vision of what might be that is envisaged in the preceding comparisons.

² *Stwt*, lit. "making even."

³ *Ir mat*, cf. *Urk.*, iv, 971, 6.

⁴ For the words here employed see above B 1, 105. *Mh nfr* is either a *casus pendens*, or else an imperative: "render good full account, and justice etc."


⁵ *Wgyt* is probably the word for "jaw" used for this one occasion as a metaphor for a man who talks futilely; hence the determinative.

⁶ Reading *shy-i* (from *shw-i* ?) with B 2, 8.

⁷ The peasant foresees that the intensity of his sorrow and the violence of his reproaches must lead to a breach, and he warns Rensi that the moment may be nearer than the latter imagines. The parting company of judge and petitioner is alluded to in several passages of our text: above in B 1, 129 (*fdk*) and below in B 1, 272: 281 foll.; B 2, 114.

⁸ *Smit* "charge" "accusation" as often later and in Coptic; see my *Inscription of Mes*, I, 14.

⁹ For the antithesis *fdk...ts*, see *Cairo stela* 20543, a 13.

¹⁰ The word *ḥt-mw*, determined here with the sign for wood, occurs with the determinative of metal in the biographical text from the tomb of Rekhmerē (Urk., iv, 1077, 3) in a passage which may be rendered thus, with the help of the additional readings afforded by my own collation: "Behold, I am (*mḥ wḥ m*) a boatman of his, ignorant of sleep night and [day] alike. I pass my time (*ḥḥ·i ḥms·i*), my heart attentive to prow-rope and stern-rope, the boat-hook(?) is not idle (*sw*) in my hands (*hr ḥwy·i*) I being vigilant for (*hr*) any chance of grounding (). The unknown verb *mri* seems so clearly connected with *mryt* "bank" that the meaning of *ḥt-mw* ("water-fighter") appears almost inevitably to be "boat-hook" "pole" for punting and sounding. For this a synonym may be *mri* in B 1, 278, where *ḥt·n·i mri·i*, lit. "I have fought my pole" may mean "I have plied my pole in order to liberate the boat from the sand-banks." In the present passage *ht wn*, lit. "open stick" constitutes a difficulty; does *wn* signify "free" from obstacle, a notion suggested by the result arising from the opening of a door? *Sp n mry ḥpr* when an occasion of water has happened"; this conveying no meaning in English, I have paraphrased freely. The image seems to depict Rensi as having lost his hold on the administration of the land, as out of his depth.

¹¹ A very obscure passage, the text differing in the two manuscripts. For *ḥḥ...n it*, cf. below B 1, 295.

¹² Rensi is certainly more learned and clever than others, but not through having plundered. Now he puts himself on the same level as everyone else, with the result that all goes wrong in the leaderless land.

¹³ For *ḥt* similarly used see B 1, 107. But B 2, has *ḥt n bw nb* as an epithet; this I do not understand.

¹⁴ *Kfny*, lit. "gardener."

SEVENTH PETITION.

Then this peasant came to make petition to him a seventh time, and said: "O high steward, my lord! Thou art the rudder of the entire land; the land sails according to thy command. Thou art the peer of Thoth, judging without inclining to the one side. My lord, be
 270 patient, so that a man may invoke thee concerning his own right cause. Let not thine heart be restive; it beseems thee not. The far-sighted man is short tempered¹; brood not on that which is not yet come; rejoice not at that which has not yet happened. Forbearance prolongs companionship². Destroy a matter that is past³. One knows not what is in the heart⁴.

275 "The subverter of law, the infringer of the norm, there is no poor man can live whom he pillages, if (?) justice address him not⁵. Verily, my belly was full⁶, my heart was heavy-laden; there issued forth from my belly on account of the condition thereof. It was a breach in the dam, and its water flowed; my mouth opened to speak. Then did I ply my sounding-pole (?)⁷; I baled out my water; I ventilated what was in my belly; I washed my soiled
 280 linen. (Now) my utterance is achieved; my misery is concluded in thy presence; what requirist thou yet⁸?

"Thy sluggishness will lead thee astray. Thy rapacity will befool thee. Thy apathy (?) will beget thee enemies. But wilt thou ever find another peasant like me? A sluggard—
 285 will a petitioner stand at the door of his house? There is none silent whom thou hast caused to speak, none sleeping whom thou hast awakened, none downcast⁹ whom thou hast enlivened, none with shut mouth whom thou hast opened, none ignorant whom thou hast caused to know, none foolish whom thou hast taught; (albeit?)¹⁰ magistrates are the expellers of mischief and the lords of good, are artists to create whatever is and joiners together of the head that is cut off."

¹ Gunn shows (Rec. 39, 102) that *hw-ib* (perhaps "peevish" or "apprehensive") is the opposite of *hw-ib* "the serene mood in which the mind is free to face the future or the past without the checks of dread or regret respectively." Commenting on this passage Gunn writes well: "that is, he who looks too far forward becomes anxious, depressed; take things as they come."

² Lit. "makes long in a friend." The peasant represents himself as a companion whom Rensi would be sorry to lose. He should therefore be patient, and review the whole case afresh, without fretting and wondering what is going to come of it all. The key-note of the passage appears to be *wh-k* in B 1, 269.

³ Obscure. Perhaps the sense may be: "let us start afresh."

⁴ See above B 1, 256 and the note p. 17, n. 7. These words appear to contain a warning, that if impatience or ill-temper is shown, the peasant may not come again.

⁵ *Hbt hp, hq tp-hsb*; the reference appears to be to Dhutnakht and those like him, who pillage and are not brought to justice.

⁶ The peasant recalls the whole history of his mental trials. That we ought here to render in the past tense is indicated by *hw* "thereupon" in B 1, 278.

⁷ See above, p. 17, n. 10.

⁸ *Dtr* means "need" "deficiency." A widow's need, *Siut* 3, 5; *hnm n-k s m dtr-k* "take a friend to thyself in thy need," Turin wooden tablet; "my need (predicament) arose from what I had done," *Pap. Petr.*, 1116A, 121. Later there has been much confusion between *r-dtr* and *r-dt*, both used as compound prepositions with the approximative meaning "to compensate for." Here the sense is: what more can you want?

⁹ In both manuscripts *hr* is followed by a horizontal stroke which might be either *n* or the plural strokes; neither reading is easy to explain.

¹⁰ The six sentences which precede illustrate Rensi's unhelpful attitude to his fellow-men, whereas the last four statements in this petition generalize concerning the virtues of the magistrates as such. It seems needful, accordingly, to supply a concessive particle like "although" "whereas" at this point.

EIGHTH PETITION.

290 Then this peasant came to make petition to him an eighth time, and said: "O high steward, my lord! Men suffer a far¹ fall through greed. The rapacious man lacks success, but he has a success in failure². Thou art rapacious and it becometh thee not; thou stealest and it benefits thee not; thou who shouldst (?) suffer a man to attend to his own right cause³. It is because
295 thy sustenance is in thy house⁴; thy belly is full; the corn-measure flows over and, when it shakes (?), its superfluity is lost on the ground⁵.

"O thou who shouldst (?) seize the robber, and who takest away the magistrates, (they) were made to redress trouble; they are shelters for the indignant⁶; the magistrates, (they) were made to redress falsehood. No fear of thee causes me to make petition to thee. Thou perceivest not my heart⁷; a silent one, who turns him ever back to make reproaches to thee. He
300 does not fear him to whom he makes his claim⁸; and his brother is not to be brought to thee from out of the street⁹.

"Thou hast thy plot of ground in the country, and thy guerdon¹⁰ in the domain. Thy bread is in the bakery, and the magistrates give to thee. And (yet) thou takest! Art thou a robber? Are troops brought to thee to accompany thee for the divisions of the ground-plots¹¹?
305 "Do justice for the Lord of Justice, the justice of whose justice exists¹². Thou reed-pen, thou papyrus, thou palette, thou Thoth, keep aloof¹³ from the making of trouble. When what is well is well, then it is well¹⁴. But justice shall be unto everlasting. It goes down into the

¹ Cf. *ir-f hty wt* "he falls far off" like a leaf, *Anast.*, I, 10, 5-6.

² Lit. "is void of an occasion, but there is his occasion of failure." There seems to be a play on words: if Rensi does not succeed in his rapacity, at least he succeeds in missing his aim.

³ See above B 1, 202 and for *sp-f n wn m't* also B 1, 270; B 2, 109.

⁴ Repeated from B 1, 93. Rensi has no satisfaction from his rapacity, since he is rich far beyond his personal needs.

⁵ *Priw* means "excess" "surplus," rather obscurely below B 1, 324-5 but quite clearly elsewhere; *Rhind math. pap.* 64; *Rec.* 16, 57; *Urk.* IV, 118, 17; 122, 11; 510, 10. For *h' n t*, lit. "perish to the ground," see less literally above, B 1, 259.

⁶ Cf. *Urk.*, IV, 972, 5.

⁷ It is, in point of fact, not easy here to perceive the peasant's heart; but probably he is pretending that, so far from his feeling fear or respect for Rensi, he now comes for Rensi's own good. Hence the pious counsels given in B 1, 305 foll.

⁸ *Tet*, lit. "raise" is a verb with important developments. It comes to mean "raise the arms in supplication," whence the word for "client" (B 1, 94, 170 and often). Then with dative of the person "make a claim upon" *Ptahhotpe*, ed. DÉVAUD, 164, 169, and hence the noun *tet* "a claim" *ibid.* 319. Here we have dative of the person and accusative of the thing. Finally, a meaning "beseech" a person is evolved; see below B 2, 106.

⁹ The peasant boasts that his equal is not to be found at every street-corner. See above B 1, 283 for a similar thought.

¹⁰ Perhaps here "land" given by the king as a reward.

¹¹ *Hn'k*, lit. "together with thee." The sense is: dost thou take troops with thee to enable thee to steal, when thou dividest up the ground-plots?

¹² By "the Lord of Justice" the sun-god Rē is possibly meant, since it is he who "lives by justice" and to whom belong the scales in which justice is weighed (see above p. 10, n. 4); cf. also the prenomen of Amenophis III, *Nb-m'ct-Rē*. But as Vogelsang shows, various other gods also own the title; it is by no means certain that the writer had any identification at all in his mind.

¹³ *Hrti* (also *Pap. Smith*, 19, 2) and its plural *hrtiwny* (*Harb.*, 421; *Mutter u. Kind*, 8, 6-9; and often) are always optative in meaning.

¹⁴ The peasant has shown himself fond of a jingle (B 1, 89, 120, 304), but this is the first time that he has descended to utter inanity.

- 310 *necropolis with him who doeth it; he is buried and the earth envelops him; and his name is not obliterated upon earth, but he is remembered for goodness. Such is the norm in the word of god¹. Is he a balance? It does not tilt. Is he a stand-balance? It does not incline to*
 315 *one side. Whether I shall come or another shall come, do thou address (him); answer not as one who addresses a silent man, or as one who attacks him who cannot attack. Thou dost not show mercy; thou dost not weaken (?) ; thou dost not annihilate (?) ; and thou givest me*
 320 *no reward for this goodly speech which comes forth from the mouth of Rē himself². Speak justice, and do justice; for it is mighty, it is great; it endureth long, its trustworthiness (?) is discovered, it bringeth unto revered old age. Does a balance tilt? (If so), it is (through) its scales which carry the things³. No inequality⁴ is possible to the norm. A mean act attaineth not to the city; the hindermost (?) will reach land"*

NINTH PETITION.

- B 2, 91 *Then this peasant came to make petition to him a ninth time, and said: "O high steward, my lord! The tongue of men is their stand-balance. The balance it is which searches out deficiencies⁵. Deal punishment upon him who should be punished, and none shall resemble*
 95 *thy rectitude⁶ falsehood, its business (?) is settled (?). Truth returneth confronting it (?)⁷. Truth is the wealth (?) of falsehood; it causes to flourish (?), it is not.....ed. If falsehood*
 100 *walk (abroad), it strayeth, it doth not cross in the ferry-boat, it maketh no progress (?). As for him who grows rich through it⁸, he hath no children, he hath no heirs upon earth. He who sails with it (for a cargo)⁹, reaches not land, his boat does not moor at its city.*
"Be not heavy, who are not light¹⁰; do not lag, who dost not haste. Be not partial¹¹; do
 105 *not listen to (thy) heart. Veil not thy face from one whom thou knowest. Be not blind to one whom thou hast beheld. Rebuff not him who puts a claim upon thee¹². Forsake thou¹³ this*

¹ *I.e.* such is the law laid down by ancient god-given authority.

² These three sentences, to which B 2, 81 adds a fourth "thou dost not retire," possibly mean that Rensi adopts no attitude whatsoever, but shows himself entirely impassive; he does not give the peasant any reward for all his eloquence.

³ The peasant represents himself as inspired by Rē.

⁴ If the balance tilts, the fault is with the scales that carry the weights and the things to be weighed. The balance itself cannot tilt, if in good order.

⁵ *Prw* really "surplus" see above p. 19, n. 5. *Hpr* = "be possible to," see Gunn's note *Rec.* 39, 105, n. 2. The balance is regarded as the norm, and this is not susceptible of excess or inequality in any direction.

⁶ *I.e.* a man's speech betrays his true nature.

⁷ It is assumed in my translation that these sentences should be emended as above in B 1, 147-8.

⁸ The characterization of falsehood which follows is exceedingly obscure, especially in its opening sentences, where we are forced, on account of the antithesis, to translate *mꜣt* as "truth," as above in B 1, 182. If *r-ḥt* be the compound preposition "opposite," then the thought must be that falsehood is always confronted with truth, which indeed is the possession, the better part, or the "wealth" (*ḥt* ?) of falsehood.

⁹ Reading *hr-f* with the marginal correction *hr* for *hr*.

¹⁰ Lit. "under it," *i.e.* "carrying it."

¹¹ Lit. "be not heavy, thou art not light." The parallelism with *hm* suggests that *dns* here means slow-moving, as in B 1, 209. Perhaps the peasant means: be not more heavy than thou canst help, thou art certainly not light. In B 1, 159-60 we found the opposite: "be not light, being heavy"; perhaps at that juncture Rensi was urged not to be too hasty to judge, while here he is naturally urged not to be too slow.

¹² *Nmꜣ*, see my note, this *Journal*, 1, 26, n. 3.

¹³ *Twt tw*, see above p. 19, n. 8.

¹⁴ *Ht-t m*, lit. "come thou down from." I owe this suggestion to Mr. Gunn.

- B 2 sluggishness, in order that thy maxim 'Do (good) unto him who does (good) to thee'¹ may be reported, yea in the hearing of all mankind, and in order that (?) a man may invoke (thee)
 110 concerning his own right cause². A sluggard has no yesterday³; one deaf to justice has no companion; the rapacious man has no holiday. He against whom accusation is brought (?) becomes a poor man, and the poor man will be a petitioner; the enemy becomes a slayer (?)⁴.
 115 Behold, I make petition to thee, and thou hearest it not. I will go and make petition on thy behalf to Anubis⁵."

CONCLUSION.

Then the high steward Rensi, the son of Meru, caused two apparitors to go and bring him back⁶. And this peasant was afraid, thinking that it was being done in order to punish him for this speech which he had spoken.

- 120 And this peasant said: "The approach of a thirsty man to the waters, the reaching of a suckling's lips after milk, such is a death which has been desired to be seen in its coming, when his death comes tardily to him⁷."

But the high steward Rensi, the son of Meru, said: "Fear not, peasant. Behold, thou shalt arrange to live (?) with me."

- 125 And this peasant said (?): "Am I to live saying 'Let me eat of thy bread and drink (of) thy (beer)' to eternity⁸?"

The high steward Rensi, the son of Meru, said: "Well, tarry here, that thou mayst hear thy petitions." And he caused [them] to be read out from a new papyrus roll, every petition

- 130 according to [its] content. And the high steward Rensi, the son of Meru, caused it⁹ to be

¹ *hr* is idiomatic for "benefit" "help" a person, see above B 1, 109, which is here quoted: *Lebensm.*, 115-6. The opposite is *ir* "act against" "harm," see VOGELSANG, p. 102.

² Repeated from B 1, 269-70.

³ In connection with what precedes, this probably means: is not remembered for any good deed done yesterday. See above p. 12, n. 2.

⁴ Vogelsang takes *wtsw* as an active, and *smf* as a passive participle. These sentences are very obscure, but some sense can be read into them if exactly the opposite view be taken. In this case the first two clauses foreshadow a possible downfall for the sluggish and rapacious Rensi; if delated to the king, he may become a pauper and then himself a petitioner. The third clause may hint that Rensi, by his persistent hostility, will be the peasant's murderer; the following reference to Anubis lends some plausibility to this view. *Wts* means "delate" *West.*, 12, 16, 23; the obscure noun (?) in *Urk.*, iv, 1088, 15 should be studied in this connection.

⁵ The peasant seems to hint at his impending death, when Anubis will become his god; he will then make petition to Anubis on Rensi's behalf, whether to reform him or to save him from the peasant's own fate.

⁶ Read *an-f*, from the transitive (*Picel*) verb *an*, see above B 1, 299; B 2, 96; *Lebensmüde*, 83.

⁷ My new readings put the general interpretation of this passage beyond question, but there are some difficulties of detail. *Mw* "waters"; the determinative suggests pools in an oasis or the like. In *dt-r* the action may be either that of the nurse (*Urk.*, iv, 240, 1) or else that of the deriver of nourishment (*dt-r hr* metaphorically, *Urk.*, iv, 1031, 12); here the latter. *Ntf*, apparently not elsewhere of neuter notions; but there is really no grammatical objection. *Nhy* looks like a passive participle. *Nyrf*, lit. because of (?) its coming. *Wdf*, presumably adverb, for the position see *dt wrt* as predicate *Bersk.*, i, 14, 1.

⁸ Some such rendering seems necessary, since the next remark of Rensi (*st grt t*, B 2, 127) appears to imply either a refusal, or else a very qualified acceptance, of the high steward's first proposal. In the sequel the peasant obtains possessions of his own which render it unnecessary for him to be dependent on the high steward's generosity. My translation assumes that *rdi* is a mistake for *gd*, that *an-f* is a virtual question, such as does occur sometimes, though not often, in Egyptian, and that *hr* is the well-known elliptical expression for "saying."

⁹ *SciL* the papyrus-roll.

B 2 sent in to the Majesty of the king Nebkaurē^c, justified. And it was pleasant in the heart [of His Majesty] more than anything that is in this entire land. And [His Majesty] said: "Give judgment thou thyself, son of Meru."

And the [high steward] Rensi, the son of Meru, caused two apparitors to go and [fetch
135 Dhutnakht]¹. And he was brought, and an inventory was made of [all his property (?)],
his....., six persons, besides [his]....., his Upper Egyptian corn, his barley, [his] asses.....,
his swine, [his] small cattle..... [And the house (?) of] this Dhutnakht [was given] to [this]
142 peasant [together with] all his..... And..... s[aid] to Dhutnakht....."








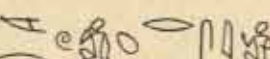
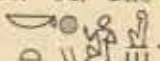
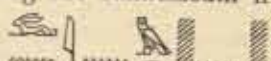
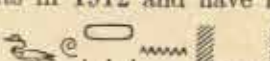
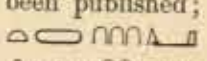


COLOPHON.

It is come [to an end in peace, even as it was found in writing].



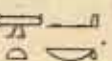
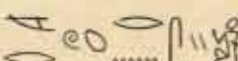



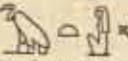


APPENDIX.

The following is a complete list of the alterations which ought, in my opinion, to be made to the autographed text published in VOGELSANG-GARDINER (see above p. 5, n. 1). The corrections of B 1 and B 2 are based on a careful collation of the originals made in September 1922.



















































































R.
















2. ; omit the q(uestion) m(arks). 3. *hrdw*; omit q. m. *Šm* , *hš n-i*
 5. *M-i* ; the traces suit neither *wn* nor *sp*. 6. ; omit
q. m. 9.  12. ; omit q. m. 41. , and so below 67, 83, 89,
93 and often; see *ÄZ.* 49, 95 foll.; *Rec.* 38, 210. 64. The first det. of *šn^cty* is uncertain;
not the plough-like sign, see below 104. 92.  118-73, see *Tafel IV bis*, in-
cluded later in vol. v of the same series. 135-8. The beginnings of these four lines were
discovered among the Ramesseum fragments in 1912 and have not yet been published;
they run: 135 ; 136 ; 137 
; 138 . 174-97 are given on *Tafel IV* as Fragment III.

B 1.

































































6. ; cf. 64. 7 end.  14.  16-7.  so too
below 34, 39, 42 and often; see above on R 41. 31. For  read  twice; see below 84.
56. *hš*; the det. appears to be that of the sail without the mast. 62. *dd* ; so
Dévaud. 64. ; cf. 6. 68.  of *dd-i* is a later addition. 84. *Tš* , 10 not 4;
so too above 31; for the proportion 5:1 of loaves and jugs of beer, see *Westc.* 7, 2-3; *Siut* 1,


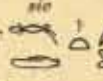


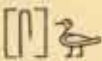


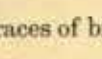

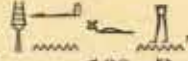


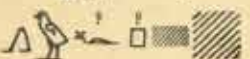
¹ After the encouragement shown by Rensi to the peasant, it can hardly have needed two apparitors to induce the latter to return, and he would certainly "come" and not "be brought." These reasons, together with the following narrative, make it pretty certain that *r* [int *Dhwtynhš*] must be restored.

314. 87. *shly*   ; for $\circ \circ \circ$ 3 *hkt*, see MÖLLER, *Pal. I*, no. 697. Vogelsang's reading is certainly wrong. 91.   omit q. m.; for form see B 1, 235. 96.   as below 148; cf. DÉVAUD, *Ptahhotep*, 207, 565, 572. 97. *tnb* has clearly a quadruped for determinative; so too below 161; Möller supposed a hedgehog.  ; but neither *twh* nor *rwh* are known; could it be a corruption of *wth-s*? 99.   seems probable. 100.   . 102. First sign , dittograph from last line.  *ir-t(w)-f*. *Dmi* Σ ; probably no importance is to be attached to the unusual form of the determinative. 107. *Hbb*  ; see above p. 11, n. 8. 108.  erroneously for *hw*, see *Rec.* 39, 102. 109. The faint *t* under  has certainly been obliterated intentionally; see moreover B 2, 108. 112. The word *dwi* is suspect and the first sign looks more like . 113. *Špw* . 115. *cnbrw*; the supposed *r* more like  *d*.      . 119.                               . 120 end.  . 121. Dévaud (*apud* GRAPOW) reads *nb*                    


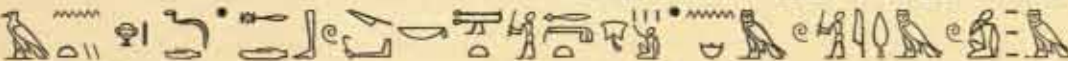
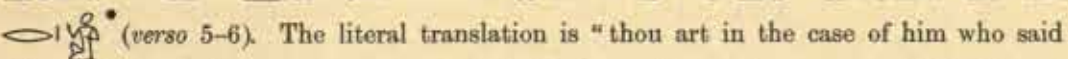
244. ; the *d* is a mistake. 258. *h3-mw* ; *mi*  *wn*; so too in *mri-i* 278; the det. of *iwsu* in 312. 323 are somewhat similar. 265. . 266. . 278. *Mri* ; see note on 258. 286. *hb3-hr* ; or ? 290. . 293.  without . 300.   . 305. In *gsti* the *i* is corrected out of . 321. Omit q. m. of *s* at end. 323. The obscure sign doubtless represents some specific determinative of *hmkw*; for such a det. see NAVILLE, *Todtenbuch*, Cap. 125, *Schlussrede*, 31 (Ca).

B 2.

1.      clear traces. 3. *iw s3t s3rr-f* tiny traces of the signs here left unitalicized. 4. Before *nfr* a vertical and a horizontal sign; accordingly reading different from B 1, 251. 6. Sufficient traces to justify the reading    . 9. *smi* ; no trace of  but a small horizontal sign () after . 10. *h3-mw* . 11. Delete *n* before *wn*; no trace. 20. The det. of *dt* is a large curled sign, damaged, not . 21.  with the numeral customary except in dates; contrast B 1, 266. 25. ; the papyrus to left of, not under, the signs for *m3c*. 35. *mdt* . 36. *mri* . 38. *m3ir*  without plural strokes. 41. *snm* ; the wings not marked however. 46. *hr* ; plural strokes like *n*, doubtful, as in B 1, 286. 51. . 56. *trf* , trace. 61. *spr* ; a low wide form found elsewhere, e.g. 85 top. 69. *ps3w*  *sdwt*; *m* must be meant, but is a little unusual in form. 71. , unless the supposed *t* belongs to preceding . 73.  . 77. ; trace of *n* and gap below it; the line may have been exceptionally long. 85. *lrr-k* ; for form of  see above on 61. 95. At top considerable traces, which I cannot decipher; the suggestion *bin tnm* is impossible.   . 97.  practically certain;   ; certain except , which is very doubtful. 99.   ; highly probable. 100. For an approximation of the det. of *hwd* to , see *Adm.* 8, 2. The correction in the margin is clearly ; perhaps *ir hwd hr-f* should be substituted for *ir hwd hr-f*. 113.  after *hft* is here doubtless a careless writing of the very similar "enemy"-sign (MÖLLER, 1, 49); see esp. *Leb.* 115. 119. ; the middle  has a peculiar twist at right end, the effect of which is exaggerated by loss of fibres. 120. Vog. later rightly read            except that he omitted plural strokes of *irtt*. 121.   certain. 123 end. Doubtless nothing lost after *mk*. 126.  

seems probable. 128. . Then *rdt-n.f* ;  may have the small cramped form seen after *wšd* B 2, 79. 129.  highly probable, if not certain. 130.   ; sufficient traces of bird and *k*. 131. ; probably a short line. 134. Restore ; the line must have been a long one, like 132. 135.  as Vog. later read. 136, 140. Considerable traces at top, not deciphered by me. 138. *šw*  probable; no plural strokes; then *r* . 142. Almost certain  in large sprawling forms.

POSTSCRIPT.

Since the above article was written, I have become acquainted with a strange piece of evidence indicating that the tale of the Eloquent Peasant was still quite familiar to the *literati* of the later Theban empire. Professor Breasted recently purchased a fine limestone ostrakon of Ramesside date dealing with the well-worn theme of the idle pupil. So slothful is the latter, that he is altogether beyond help. This appears, at least, on a superficial study of the text to be the meaning of the sentences    (verso 5-6). The literal translation is "thou art in the case of him who said: 'thou killest, stealest away my asses, takest the lamentations from my mouth.'" Here we clearly have a very inaccurate quotation of the words of the peasant in B 1, 28-9. It thus appears that the tale must have enjoyed a wide celebrity in the schools. I am indebted to my friend Professor Breasted for permission to publish this interesting reminiscence of the Middle Kingdom story.

THE RED CROWN IN EARLY PREHISTORIC TIMES

By G. A. WAINWRIGHT

With Pl. XX, fig. 3.

By the kindness of the keeper of the Ashmolean Museum I am enabled to publish the pottery relief here figured (Pl. XX, fig. 3), which now bears the number 1895—795. It comes from Naqada on the western side of the Nile between Denderah and Thebes, and some four hundred miles south of Cairo. It has already been figured by Petrie as no. 75, Pl. LII, of his *Naqada and Ballas*. The importance of this piece, as being by far the earliest example of the red crown¹ yet known, was not apparent at the time of the original publication, as the system of sequence dating had not then been worked out. This great work having now been accomplished and proved satisfactory on many prehistoric sites, this potsherd stands out as an historical monument of considerable value. It is a fragment of a wide-mouthed vessel of the very best black-topped ware—Petrie's B ware,—which is one of the classes characteristic of the first prehistoric civilization, and its interest lies in the fact that on it appears in high relief a fine example of the red crown of Lower Egypt. This has not been applied later, but has been moulded in the clay of the vessel when it was wet and before it was burnished, for the burnishing marks run round it and into the various corners. There can thus be no question that the crown is of the same date as the potsherd. Is it possible, then, to date the sherd? Now, fortunately by reference to the original records the tomb-group, no. 1610, to which it belongs can be dated accurately, and the date is found to be s.d. 35—39². Thus the pot belongs to the latter part of the first prehistoric civilization, which lasted in full vigour until the period s.d. 40. It also belongs to the culminating period of the B ware, which only began to decline in quality and quantity after s.d. 39, which is the latest date for our pot as well³. Lastly it might also belong to the period of innovation, which begins at s.d. 38⁴; a date within the possible range of our tomb-group.

Various questions arise which it is not possible to answer fully in the present state of our knowledge. The first thought, of course, is one of surprise at the existence of this emblem of dynastic Egypt at so early a date—so very far removed from the beginning of the dynasties. Another is what was this northern symbol doing near Thebes some four hundred miles south of Cairo, when it is proper to the Delta, and more accurately to Sais, some eighty-five miles or so north-west of Cairo. The possibilities however resolve themselves into three, which are, that our potsherd may represent:

1. The existence and political importance of the kingdom of Sais,
2. The influence of the religion and culture of Sais,
3. A connection of the Upper Country with Libya,

¹ There can be no doubt that the object represented is really the red crown, although it differs in some details from the shape assumed later. It corresponds quite closely to other early representations, as for instance *Hierakonpolis*, I, Pls. XXVI B, XXIX. The fact that it is shown as hollow can be accounted for by the supposition that it is only an outline drawing.

² PETRIE, *Prehistoric Egypt*, Pl. LI.

³ PETRIE, *Diospolis Parva*, 29.

⁴ PETRIE, *Diospolis Parva*, 29.

at the time of the first prehistoric period of Upper Egypt. While unfortunately it is at present impossible to pronounce definitely upon these possibilities it will at least be of value to discuss them, and so prepare the ground for any further discoveries. Now, the first two contain the implication that though dating to the first prehistoric civilization our potsherd really belongs to the earliest dawn of the second, and that it was either an import to Naqadeh from the north or a southern imitation of a northern object. In this case it would represent only the first of a series of cultural waves which increased in volume until they finally swamped the first in the second civilization. The third possibility implies that the potsherd with its emblem was native to the culture in which it was found.

Political importance of Sais. In the first place, then, it has of course long been known that there were ancient kingdoms in the Delta¹. Again the expression "The Souls of Pe" refers to Buto in the western Delta and apparently to prehistoric kings there². It has also been known for many years that the red crown was worn by rulers before the historic times, as nine, and probably twelve, such are figured on the fragmentary Palermo Stone³. Further it can be deduced that the Sothic cycles did not begin with the First Dynasty, but had been established long before then and that the necessary observations had been taken in the latitude of the Delta and not in the south country⁴. But up to the present we have had nothing to suggest to us for how long these kingdoms of the north had been running contemporaneously with the southern civilization, so well known to us under the name of prehistoric or predynastic.

Supposing then that the pot relief could be proved to represent the actual crown worn by the kings of Sais, we should have the kingship of this state dated back to S.D. 35—39. In such a case the kings whose crown came in later times to be symbolic of the whole Delta would be proved to have been no mere upstarts rising to power just in time to figure prominently at the beginning of the historic period. They would on the contrary be proved to have traced their ancestry from an epoch contemporaneous with the earliest phase of the prehistoric civilization in the south. If this sign should represent the king of Sais, it would either mean that he had extended his sway as far as Naqadeh, which is unlikely; or that he had had the pot made to contain some present to the southern chief; or that the pot had been made in the south to contain such a present. On such a supposition our find, though dating from the time of the first prehistoric period, would really represent the earliest known encroachments of the Delta, which finally evolved a new age out of the first.

Religion and Culture of Sais. While there is no evidence against our sign representing the crown of the kings of Sais, it is perhaps more probable that it was a cult sign. Such do occur as early as S.D. 35⁵, and are well known shortly afterwards in the next period of civilization—the second prehistoric, which began to take definite form about S.D. 40. The changes gradually leading to it can be traced back, however, as early as S.D. 38, or in other words just into the possible range of our pot itself. These cult signs occur on the boats painted on the decorated pottery—Prof. Petrie's D ware—and Prof. Newberry has

¹ For studies of some of them see NEWBERRY, *Liverpool Annals of Archaeology*, I, 17 ff.; *P.S.B.A.*, 1906, 68 ff.

² SETHE, *Untersuchungen*, III, 21.

³ SCHÄFER, *Ein Bruchstück Altägypt. Annalen*, Taf. I.

⁴ MEYER, *Ägyptische Chronologie*, 41; BREASTED, *Ancient Records*, I, 30, 40.

⁵ PETRIE, *Diospolis Parva*, Pl. IV. Standards of Ships, and p. 29.

shown¹ that just over two-thirds of them are of western Delta origin. They therefore belong to the same district as Sais, the home of our red crown, and among them actually occurs a certain number of the crossed arrows, the symbol of Sais and its goddess Neith. The red crown itself, however, does not occur on these boats. Were our pot relief to be considered as one of these cult signs it would then represent, not the king of Sais, but its goddess, Neith, one of whose attributes the red crown regularly is all through the historic period.

Our sherd would in this case offer one more piece of evidence, and an important one on account of its age, as to the leading rôle played by the Delta in the formation of the prehistoric civilization of the upper country, and, no doubt, in the passing on to it of such northern products as lapis-lazuli, silver, obsidian² and the art belonging to the Elamite or Mesopotamian tradition³. All of these and the decorated pottery showing the cult signs belong to the second prehistoric civilization. Hence, on this view also, our potsherd, though actually dating to the first prehistoric age, would really belong to the second. It would be its precursor, one of the earliest signs of the northern influences which during the latter part of the first age were so strongly at work moulding and characterizing the next.

It would also show that Sais, without reference to its form of government, had been an important culture centre, not only from second prehistoric times, as is now well known, but also from well-nigh the dawn of civilization. As it would be quite unlikely that our potsherd should date from the very foundation of the Saite culture, it might be fairly deduced that the still unknown prehistoric civilization of the Delta would be at least as ancient as that so well known in the upper country. In fact, in view of Sais' nearer proximity to the outer world it might even be older.

Connection of Upper Egypt with Libya. There yet remains the third possibility. Some years ago Prof. Newberry⁴ adumbrated the existence of a prehistoric and long-forgotten people of Libyan origin who had not only inhabited the western Delta, but also the whole Nile valley. In such a case our find would not represent Sais at all, but would simply be a relic of such a people, who apparently had strong centres about Sais in the north and Nakadeh in the south. Then it would merely mean that the southerners had died out or had been absorbed, leaving only vestiges behind, while the northerners survived even into classical times. Under such conditions it might well be that what had once been common to all Egypt has hitherto only been known to us as peculiar to Sais. In this connection it should be remembered that various nome signs are surmounted by the feather—the symbol of Libya—or the double feathers, which were worn by the Libyan chieftains. These nomes are the third, fourth, sixth, seventh, eighth, ninth, tenth and seventeenth⁵. There is only

¹ *Liverpool Annals of Archaeology*, v, 135.

² PETRIE, *Diospolis Parva*, Pl. IV. Materials of Beads. Standards of Ships.

³ Cf. PETRIE, *Ancient Egypt*, 1917, 26 ff.

⁴ *Liverpool Annals of Archaeology* (1908), I, 19.

⁵ 3rd *el Kab*. Ne-user-Rê sculptures from the Sun Temple at Abu Gurab. Cairo Museum no. 57118 red number. As late as the VIIIth dynasty it was represented by its sacred object surmounted by the pair of feathers. MORET, *Comptes Rendus de l'Acad. des Inscr. et Belles Lettres*, 1914, fig. facing 568, vertical column no. 3.

4th *Thebes*. Reisner's Menkaure's Triad now in Cairo Museum, no. 40678, cf. STEINDORFF, *Ägyptische Götter*, 868. Palermo Stone, SCHÄFER, *Ein Bruchstück Altägyptischer Annalen*, 16, Year 6. Pyramid Texts, SETHE, *Die Pyramidentexte*, I, § 131 D. This sign is usually taken to represent a goddess *Hmt* on the strength of a variant reading in the Pyramid Texts. But in the Menkaure's Triad at any rate, it is not a

one outlier, the seventeenth—all the rest form a compact group from which the fifth only is missing. Though the feather does not happen to have been adopted into the symbol of the fifth nome (Koptos), yet Koptos is brought into connection with the feathers and the rest of this district by the god Min; for his symbol is surmounted by a feather in prehistoric and early times¹; Min himself is one of those gods who wear the double plumes²; feathers are worn by performers in a ceremony before him³; and his symbol was actually adopted by one of the nomes of this group, the ninth, as its cognizance⁴. It may thus be said that there is a solid block of nomes with feather connections stretching from el Kab to Ekhnim. It is in the very centre of this country that our site of Naqadeh lies, whence comes our earliest example of the red crown.

Various portions of this district are still further bound to each other, by their common worship of the god Min, who was chief god of Panopolis (Ekhnim), also of Koptos nearly opposite Naqadeh, and was the original form of Amūn of Thebes⁵. Now one of the great

goddess whom it serves as a symbol, but a god. Moreover its appearance in company with three other well-known nome signs makes it clear that here at any rate it stands for the Theban nome itself. The variation of the number of arcs above the sceptre is noticeable, 1, 3 and 4 occurring. In later times when the arcs have disappeared the feather is regularly added to the *wš* sceptre itself.

6th *Denderah*. Ne-user-Rē sculptures from the Sun Temple above mentioned. MORET, *op. cit.*, vertical column no. 4.

7th *Diaspolis Parva*. Reisner's Menkaure Triad now in Cairo Museum, no. 46499, *cf.* STEINDORFF, *Ägyptische Götter*, 868.

8th *Abydos*. A number of old kingdom examples are conveniently collected by WINLOCK, *Metrop. Museum of Art. Papers* 1. *Bas-reliefs from the Temple of Rameses I at Abydos*, 23, fig. 5. For the accompanying references see p. 21, n. 2.

9th *Ekhnim* (Panopolis). QUIBELL, *Hierakonpolis*, Part 1, Pl. XXVI c, or more clearly NEWBERRY, *Liverpool Annals*, III, Pl. XIX, fig. 9. LACAU, *Sarcophages Antérieurs au Nouvel Empire*, I, 11. Coffin from Ekhnim, no. 28004. CAULFIELD, *Temple of the Kings at Abydos*, Pl. XVIII, 9.

10th *Aphroditopolis*, on the western bank opposite Panopolis. MORET, *op. cit.*, vertical col. no. 4. SETHE, *Pyramidentexte*, I, § 792 A.

17th *Cynopolis*, far to the north opposite Oxyrhynchos (Bahnasa). Reisner's Menkaure Triad, Cairo Museum, no. 40679, etc. The jackal often wears a feather without reference to his nome. PETRIE, *Royal Tombs*, I, Pl. XXIX, 86, XXX.

¹ NEWBERRY, *Liverpool Annals*, III, 50—52, Pl. XIX, figs. 5 (i), 6, 7, 8. Figs. 9, 11, 14 are nome signs and so not to be included here.

² Newberry quotes an instance as early as the First Dynasty, *op. cit.*, III, 50. Double feathers are the sign of a Libyan chieftain. Min's feathers usually differ somewhat from the Libyan ones in that they are straight instead of curling over at the top. This however is not as important as it might appear, as the feathers on his symbol are curled just like the Libyan ones; *cf.* NEWBERRY, *op. cit.*, Pl. XIX. Again the straight ones usually represented on the sacred symbol of Abydos are derived from original curled ones. WINLOCK, *op. cit.*, 23, fig. 5. The question of the feather-wearing gods deserves working up and should be productive of much information. For instance at Kau el Kebir (Antaeopolis) on the east bank, where the governors of the Aphroditopolite nome were buried (see the canopic jar of *wš-kt* now in the Turin Museum), Set was identified by the Greeks and Romans with Antaeus, a Libyan hero, and was represented with two feathers on his head, *cf.* GOLENISCHEFF, *Zeitschr. f. äg. Spr.*, 1882, Taf. III, IV. That it was Set who was god of this district has now been made clear by Schiaparelli's excavations, the results of which may be seen in the Turin Museum.

³ LANZONE, *Dizionario di Mitologia Egiziana*, Pl. CCCXXXIV. It is to be noted that their leader on the left wears the double feathers of the Libyan chieftains.

⁴ See references given in note 5, p. 28 under Ekhnim.

⁵ *Cf.* NEWBERRY, *Liverpool Annals*, III, 50.

Abydos and *Koptos*¹. These are cities in the Nile valley dedicated, not to Amūn, but the one to Osiris, the successor of the western god Khenti-amentiu, and the other to Min².

After all it is only natural that Libya should be well represented in the district between Ekhnim and el Kab forming as it does a curve centring on Khargeh, the largest of all the oases. Moreover the whole of this tract of country is closely united to the Oasis by seven main caravan routes, many of which at the Egyptian end have ramifications branching to the various small towns and villages (Fig. 1). This gives an idea of the closeness of the connection between the two; a connection which is not modern, but at least as old as the XIIth dynasty³. The best and shortest of the roads is that entering the Nile valley at Waled Hallaf⁴ almost in the centre of our district⁵. Thus the tract of land in which Nakadeh is situated and whence comes our example of the red crown is one which is closely united in many ways to Libya⁶.

¹ WINLOCK, *Bull. Metrop. Mus. of Art*, 1909, 201. Is there a dim connection between a tale still told by modern Kūftis and the legend of the imprisonment of Set at Koptos, or possibly the fact that he had a temple at Ombos (Nūbt) just across the Nile? The story says that at the time of the conquest the inhabitants of Kūft were especially wicked and powerful and that the good people (the Muslims) could not prevail against them. They were great magicians and when the Muslimin were getting the better of them, they used to disappear into a strongly built stone chamber which they had underground. The Muslimin of course at last found the secret of this place and forced it. It is said to be at the *Mamul* between the village and the railway station, though this identification is probably only due to the massive construction of this building.

² Though as a rule Min was undoubtedly thought of in connection with the east, yet the previously quoted facts remain and these give him a Libyan complexion also.

³ Ikudidi came to Abydos about some business in connection with the Oasis. BREASTED, *Ancient Records*, I, §§ 524-528, and *History*, 182. Abydos then was at the end of one of the chief caravan routes from Khargeh, and fittingly enough was the home of Khenti-amentiu "The Chief of the Westerners." The sacred symbol of Abydos was the headdress of a Libyan chieftain—no doubt Khenti-amentiu himself. There is only one *waddi* in the immediate environs of Abydos which offers a road on to the top of the desert and it is still used by travellers to-day. "On reaching the top one finds a well-worn track leading to the west. It is marked out by stones set up on end, which have been in position so long that they have become as much blackened by the weather as the original surface of the desert. I know one about a foot thick, through which the wind-driven sand has cut to a depth of some eight inches. It is a most striking fact that it is at the mouth of this *waddi* that the tombs of the kings of the First and Second Dynasties and the reputed tomb of Osiris are situated. They are quite isolated; far from the rest of the cemetery, and further still from the temples and town of Abydos."

⁴ BEADNELL, *An Egyptian Oasis*, 1900, 27 ff., especially 32 and map facing 26. It will be remembered that of the feather nomes there was only one which lay apart from the rest—the 17th or Cynopolite nome. It is significant, therefore, that it should also be opposite the end of a desert road from another Libyan oasis. This is the Bahriyeh which is connected with Egypt by a road debouching at Oxyrhynchos (Bahnassa) exactly opposite Cynopolis, cf. BAEDER's *Egypt*, 1902, English edn., 190, 195.

⁵ Waled Hallaf (Khallaf) is close to Abydos and itself belongs to an important culture district. At el-Mahasneh, which was close by, there was an important site dating from the comparatively rare earliest period of the predynastic age, and others of the Old Kingdom and Intermediate Period between the Old and Middle Kingdoms. At Bêt Khallaf were the great mastaba tombs of the Third Dynasty kings Neter-khet and Sa-nekht (Hen-nekht). GARSTANG, *Mahasna and Bêt Khallaf*; AYRTON and LOAT, *Predynastic Cemetery at el Mahasna*.

⁶ Important results for the Nile valley have already been traced to contact with Libya:

(a) At Sais, in the founding of the Delta civilization in prehistoric times. NEWBERRY, *P.S.B.A.*, 1906, 68 ff.

(b) At Gebel Barkal in the Sudan, in the founding of the Ethiopian empire of Piankhi and Tirhakah. REISNER, *Boston Bulletin*, XIX, 26, 28.

If, therefore, our symbol does not represent the king of Sais himself but only Neith worship, it may well be that it does not represent Sais at all either politically or culturally, but merely indicates the presence of a primitive Libyan population of Neith worshippers at Nakadeh, just as at Sais. In considering the respective merits of these three possibilities it is important to remember that the symbol dates from the period of the *first* prehistoric civilization; that it is moulded on a black-topped pot, which class was especially characteristic of the first civilization, and that there is much reason for considering this culture to be of Libyan origin¹.

These then are the possible explanations of our find. No attempt can be made to dogmatize at present, but they are merely put forward here in readiness for some discovery which will one day give a decisive verdict in favour of one or other of them.

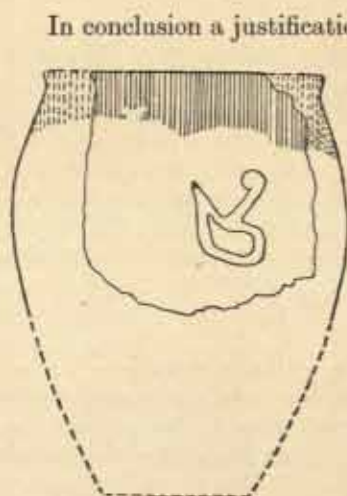


Fig. 2. Scale $\frac{1}{2}$.

In conclusion a justification should be given of the reconstruction of the pot attempted in Fig. 2. Now, to restore a vessel perfectly it is necessary to know (1) the diameter of the rim, and (2) its shape; (3) the diameter of the widest part (shoulder), and (4) its position on the vase; and finally (5) the shape of the base, and (6) its distance from the neck, i.e. the height of the vessel. Fortunately our fragment provides four of the above six requirements, and the two that are lacking can be supplied with reasonable certainty owing to the remarkable regularity of the proportions of the individual pots belonging to any one of the prehistoric types. Firstly, there is enough of the rim left to enable the circle, of which it is a segment, to be reconstructed. This gives a mouth with a diameter of 220 mms. Secondly we also have its shape. Thirdly and fourthly as the convex outline of the potsherd is found to have passed the maximum and to be curving

inward before it is broken off, it is clear that the potsherd includes the widest part of the pot as well as the rim. Hence, it is only necessary to set up on the protracted diameter of the rim a line at right angles, which shall touch the widest part of the sherd, and to measure the distance between the point of contact and the rim. This gives the amount by which the widest part of the pot is greater than the rim, the diameter of which has been already discovered. At the same time the distance between this widest part and the rim can be measured. In practice this is very simply done by carefully standing the potsherd upright on its rim and also setting a ruler upright on the table so that it just touches the widest part of the sherd. In this way the diameter of the widest part is found to be 268 mms. at a distance of 112 mms. from the rim. Thus we have become

(c) To a lesser extent in the founding of the XXIInd dynasty in Egypt which was also of Libyan origin. It is therefore to be expected that this feather district would be an important one in Egypt and in fact it did play a very leading rôle, for it included:

- (a) The largest and most representative site of the prehistoric civilization yet published (Nakadeh).
- (b) The capital of the early kings who united the "two lands" of Egypt under one crown (Hierakonpolis).
- (c) The burial place of the earliest kings (Abydos).
- (d) The holiest place of pilgrimage in historic Egypt (Abydos).
- (e) The imperial capital (Thebes).

¹ PETRIE, *Nakada and Ballas*, 63, cf. *Diospolis Parva*, 30.

possessed of four out of the six details necessary to the restoration of a pot. These show a large wide-mouthed black-topped pot as represented in black outline in Fig. 2. On turning to the corpus of black-topped pottery published in *Naqada and Ballas, Diospolis Parva*, etc. and on selecting the types which are possible from their general shapes, it is found that the only ones are B 25a, b, c, g, h, 35a, c, 53b, 58a, 74a, b, 77a, 78a, 79a. Of these only one will bear a close comparison, but in its case the agreement is remarkable. Nos. 25g, 35a, c are much too small to represent a vase with a mouth 22 cms. in diameter. It should next be noted that our sherd comes from a pot wider at the shoulder than at the mouth. This eliminates nos. 25b, c, h. Of the remainder 53b, 58a are scarcely likely as their rims are so different from ours. In 53b the rim is strongly formed and turned downwards, and in 58a it is merely a slight roll finishing off the edge, while ours is just a slight flaring outwards of the sides of the vessel. Also the mouths of both are a good deal narrower than the required 22 cms. In the seventies we come to a group of types the proportions of which are closely allied to ours. Our pot might almost be reconstructed as a large variant of either 74a, b, 77a, or 78a, in which however the rim, as well as the size, is unsuitable. The selection however would not be a good one as all these types are too small. As a matter of fact the only type left, no. 79a, is not only considerably larger than they, but also corresponds to our pot both in the shape of the rim, its diameter, the diameter at the shoulder, and the distance between the rim and the shoulder, though it is not easy to measure this latter very accurately. The measurements are as follows:

	B 79a	Our vase
Diameter of rim	210 mm.	220 mm.
" " shoulder	240 "	268 "
Length between rim and shoulder	84 "	112 "

Thus the proportions of the two vases are very parallel; ours being in each case a little the bigger. The greatest variation comes in the length between the rim and the shoulder, which dimension is at the same time the vaguest and most difficult to gauge. But even here the difference is one of less than three centimetres on a total length of over thirty. Taking B 79a, then, as the original of our pot let us complete the reconstruction on these lines. By measuring fig. B 79a it is found that the length of the vase is 318 mms. or practically 1.5 times the diameter of the mouth. Now, the diameter of the mouth of our vessel is 220 mms., therefore by these proportions the original length should have been just about 33.0 cms. By continuing the curve of the sides towards a point 330 mms. below the rim it is found that the distance between their ends is 121 mms. This of course represents the base, and compares very well with the 114 mms. of fig. B 79a. The base of our pot thus arrived at is rather larger than that of fig. B 79a, and so is in keeping with the other dimensions which are already known. Thus there is no discordant detail in the proposed reconstruction, and there need be little doubt but that our potsherd comes from a vase of the type B 79a.

Having proposed a reconstruction for our pot, it remains to test the date of this type of vessel with that otherwise proved for the tomb-group from which it came. This can be done by reference to the list of dates of the corpus of prehistoric pottery published in *Diospolis Parva*. Here on page 9 it is found that the life history of type B 79a extends over the period s.d. 31—48, within the early part of which fall the possible limits of the tomb-group, no. 1610. These it will be remembered are s.d. 35—39. Thus once again, on the application of yet another test, no discrepancy is found, on the supposition that the original pot conformed to the type B 79a.

THE MEROITIC KINGDOM OF ETHIOPIA: A CHRONOLOGICAL OUTLINE

By G. A. REISNER

Plates I-XIX

THE first independent kingdom of Ethiopia was founded by the Libyan ancestors of Piankhy, the chiefs buried in the tumuli of El-Kur'uw. These chiefs had lived and died near Napata, and it was from Napata, not from Thebes, that their descendants, the kings of the Egyptian XXVth Dynasty, governed the whole of the Nile Basin from the marshes of the White Nile to the Mediterranean Sea. When Tanutaman, the fifth king after Piankhy, was driven out of Egypt by the Assyrians about 661 B.C., and the Ethiopian Kingdom reduced to its original limits, the royal administration remained centralized at Napata during the reigns of about twenty kings, or down to the accession of Nastasen (about 300 B.C.) who was crowned and buried at Napata but ruled at Meroe. The old family cemetery at El-Kur'uw in which Kashta, Piankhy, Shabaka, Shabataka and Tanutaman were buried was filled up, and Tirhaqa built his great pyramid, the greatest in Ethiopia, in a new field at Nuri. Nineteen other kings built their pyramids and those of their queens in the cemetery of Tirhaqa at Nuri, ending with Nastasen of Meroe. This period, during which the immediate members of the royal family were interred at El-Kur'uw and Nuri, from about 900 to about 300 B.C., I call the Napatan Kingdom or the Napatan Period of Ethiopia.

Napata is the natural capital of the arid Northern Ethiopia, the land of caravan routes and of the gold mines which supplied Egypt. Meroe lies about 400 miles up the Nile from Napata, within the zone of tropical rainfall, and, being a centre of caravan routes to all parts, is a natural capital of Southern Ethiopia which, unlike Northern Ethiopia, was a land of agriculture, grazing and market-places. Towards 300 B.C., the accession of Nastasen of Meroe to the throne of United Ethiopia marks a shift in power from Napata to Meroe, an indication of a change in the relative importance of the resources of the two parts of the kingdom. (See CROWFOOT, *The Island of Meroe*, p. 30.) With the burial of Nastasen, the pyramid sites of the royal cemetery at Nuri were exhausted and the greater part of the rulers of Ethiopia were thereafter buried at Meroe and certainly ruled from the Southern capital. Thus the later period of Ethiopian history has long been known as the Meroitic Period and I call the Kingdom of Meroe the Meroitic Kingdom of Ethiopia. It is to be noted, however, that for part of the period there were two dynasties which ruled at Napata and these I label the First and the Second Meroitic Dynasties of Napata.

The chronology of the Napatan Kingdom of Ethiopia was recovered from the series of archaeological groups yielded by the excavation of the royal cemeteries of El-Kur'uw and Napata. (See my preliminary reports: *Harvard African Studies*, II, 1-64; *Museum of Fine Arts Bulletin* (Boston), nos. 97 and 112; *Sudan Notes and Records*, II, 237-254.) The hope was therefore raised that by similar methods the chronology of the Meroitic Kingdom of Ethiopia might also be established.

Four cemeteries of pyramids were known which were obviously of later date than the royal

cemetery of Nuri—one at Gebel Barkal (Napata) and three at Begarawiyah (Kabushiyah, Meroe). The cemetery at Gebel Barkal was excavated by the Harvard-Boston Expedition in 1916 (Jap. 24—Feb. 27; April 19—20), and consisted of 25 tombs divided into two main groups. At Begarawiyah there were two cemeteries on the foot-hills of the higher desert about two miles from the ruins of the city of Meroe and one on a low knoll in the wide desert plain about half a mile from the city. Of the two on the foot-hills, the more southerly is on a dome-shaped hill of sandstone covered with black ferrirete; it contains a large number of small tombs and is here called the Southern Cemetery (S Cem.). The other is on a sandstone ridge about 250 metres north of the S Cem., contains the well-known great row of large pyramids, and is here called the Northern Cemetery (N Cem.). The cemetery in the plain I designate the Western Cemetery (W Cem.)

The work of the Harvard-Boston Expedition at Begarawiyah began with a preliminary investigation of the S Cem. in 1920 (March 29—April 16). The S Cem. was excavated in 1920–21; the N Cem., partly in 1920–21 and partly in 1921–22; and the W Cem., partly in 1921–22, leaving about a third yet unexcavated. For examples of the jewellery found in this cemetery see Plates VII–XI.

The tombs recorded in these four cemeteries up to the present are as follows:

	King	Queen	Crown-prince or Princess	Other Royal Tombs	Other Tombs	Total Tombs
(1) S Cem.	3	6	.	.	195	204
(2) N Cem.	30	6	2	3	3	44
(3) W Cem.	.	.	.	.	113	113 (incomplete)
Total, Beg.	33	12	2	3	311	361
(4) Barkal	7	8	3	.	7	25
Sum total	40	20	5	3	318	386

The tombs of the kings, 40 in number, are of course those which represent most fully the succession of generations and are therefore of prime importance. The tombs of the queens, however, especially in view of the prevailing legend of a long line of reigning queens, and those of the crown-princes and princesses must also be considered, as well as the three small tombs in N Cem. of which the sex of the owners is doubtful. Thus a total of 68 royal tombs is available for a study of the chronology for a period which may be roughly estimated at six to seven centuries. Most, if not all the other tombs recorded, are also royal tombs in the sense that their owners were minor members of the royal family. The W Cem. has been supposed to contain some tombs of kings and queens, and it does actually contain some tombs of queens but, as far as our present work goes, no tomb of a king has been found. If the continuation of the excavations at the W Cem. does hereafter reveal any tombs of kings, I have no doubt that they will be later in date than the last pyramids of the N Cem. at Begarawiyah. In effect, the 68 royal tombs enumerated above represent all the reigns from Nastasen to the end of the N Cem., while the 318 other tombs are the graves of persons related to the royal family from the time of Piankhy downwards. In the present article it is not my intention to go beyond the end of the N Cem.

It is manifest that the greater part of the material, both the primary and the subsidiary, lies in the records of the excavations at Begarawiyah. The 33 tombs of kings of the S and the N Cemeteries mark at least 33 successive generations. Although the existence of kings' tombs at Barkal indicates that there may be gaps in this series, there will be, at any rate, no overlapping, and the foundation of the chronology must be obtained from these 33 tombs in connection with the adjacent tombs of queens and princes.

I. THE CHRONOLOGICAL ORDER OF THE PYRAMIDS AT BEGARAWIYAH.

From the cemeteries of El-Kur'uw and Nuri a series of archaeological groups were obtained which covered generation by generation the long period from about 900 B.C. to about 300 B.C. None of the royal pyramids at Begarawiyah present the exact type-forms of any group of this series and all are therefore later in date than the last pyramid at Nuri—a fact which was perfectly obvious to all previous scholars from a view of the exterior forms alone. But the royal pyramids of the S Cem. resemble most closely in type-forms the pyramid of Nastasen and the other pyramids of the last group at Nuri. It was this fact which led me to begin our work in the S Cem. as being obviously the earliest of the three cemeteries at Begarawiyah.

1. THE SOUTHERN CEMETERY AT BEGARAWIYAH.

The Beg. S Cem. is on a prominent dome-shaped hill rising from the great plain east of the ancient city. The basis is sandstone, which is covered with a deep layer of hard, reddish earth (decayed sandstone) which in turn is overlaid (on the top only) with a layer 25—80 cm. thick of black ferricrete. By natural denudation the western, the northern and the southern sides of the hill descend steeply to the plain and the eastern side slopes gently down to a wady which bounds the cemetery in that direction. But the sandstone sub-stratum runs out from the middle of the eastern slope northwards to form a lower spur which I call the "northern spur" and again from the bottom of the slope in the same direction to form the western bank of the wady.

The excavation showed that the whole of the hill except the western bank of the wady was occupied by minor tombs whose archaeological characteristics correspond faithfully to those of the Napatan series of archaeological groups from the time of Piankhy to that of Nastasen. On the top of the hill were a number of pit-graves covered by stone mastabas or pyramids with sloping faces similar to the tombs of Kashta and of the queens of Piankhy at El-Kur'uw. The contents of these pit-tombs also presented similarities to those of the tombs at El-Kur'uw,—faience amulets, pottery, stone vessels and bronze vessels. In particular I would call attention to the following:

- (a) Tomb S 131 contained a faience amulet of early Ethiopian type inscribed with the name "Menkheperre", or Shabataka.
- (b) Tomb S 132 contained about 30 faience shawabtis similar in form, technique and material to the shawabtis of Tanutaman and made, I believe, by the same hand. The inscription in Egyptian hieroglyphics read, "The Osiris, S-s-n-s-uw."

These pit-tombs were scattered over the top of the hill and about half way down the eastern slope. Interspersed with them, and extending over the northern spur as well as down the eastern slope, tombs of later types were found—pit pyramids with an eastern entrance (*cf.* the tomb of Piankhy) and stairway pyramids (*cf.* the tombs of queens near Napata and especially the M-group at Nuri). Among the pottery and other objects contained in these the following may be mentioned in particular.

Pit pyramids with eastern entrance:

- (c) Pyr. S 44, *about half way down the eastern slope*, contained two alabaster ointment jars exactly like those of Aspalta, Amtalqa and Malenagan, and inscribed with the names of Aspalta,—*"Lord-of-the-Two-Lands, Lord-of-Monuments (sic), Merkeré, Aspalta."*

- (d) Pyr. S 38, a little lower than S 44 and further north, yielded four dummy jars each inscribed in Egyptian hieroglyphics with the name of a canopic deity and all strikingly like the canopic jars of King Malenaqan (Nuri V).

Stairway pyramids with plain corners and stepped faces:

- (e) Pyr. S 15, about 18 metres east of S 44 and lower down, contained an Egyptian funerary stela with hieroglyphic inscription in the name of a lady, "*P-s-r-w-t*."
- (f) Pyr. S 20, about a third of the way down the northern spur, contained an Egyptian offering stone (Nuri type) in the name of the "king's son, *K(?)-t-r-i-k*."
- (g) Pyr. S 24, about half way down the northern spur, gave us a rhyton of Athenian red-figured ware signed by the potter Sotades, known to have worked in the fifth century B.C. (Plate I).
- (h) Pyr. S 500, on the steep northern slope of the hill, yielded a granite stela with Egyptian inscription in the name of the "king's brother, *K3-r-ty-nl*."

If none of these decisive objects had been found, the date of the S Cemetery would nevertheless have been established by the mass of pottery and small objects which came from its plundered pits. But with the enumeration of the above eight objects it will be at once admitted that the tombs of Beg. S Cem. are contemporary with the royal tombs of the Napatan Kingdom, and I will not trouble to give the details which bring the parallelism down to about the time of Nastasen.

The direction of growth of the cemetery is of importance. Beginning on the summit of the hill, the cemetery grew by extension and interspersion down the eastern slope to the level of the northern spur, then along the northern spur to the end. Perhaps after the exhaustion of the spur, or a little before, the growth continued on the eastern slope towards the wady and the yoke on the south which runs up again to the next hill on the east. Now eight royal pyramids stand along the western bank of the wady on the last available sites in this cemetery, at the very end of the line of growth, and are beyond any question part of the S Cem. and the very last tombs made in that cemetery.

The similarity to the history of the cemetery of El Kur'uw is obvious—an old family cemetery which became a royal cemetery when the heads of the family became rulers of the kingdom. The occurrence of the titles "king's son" and "king's brother" in the examples given above and on one or two almost illegible stones and the character of the objects in general show that S Cem. was a cemetery of persons closely related to the royal family of Napata. Certainly this is the family of "king's relations" from which Nastasen was selected when he was crowned king at Napata (see SCHAEFER, *Aethiopische Königsinschrift*, 97), and the family whose head, Arikakaman (S VI) became king of Meroe. I feel safe therefore in deducing from these facts that a branch of the royal family of Ethiopia had gone south to Meroe in the days of Piankhy to hold and administer southern Ethiopia for the king in Napata, much as Khariuwt, the son of Aspalta, had been sent to Kaned, which may possibly be this very province of Meroe. (See REISNER, *Sudan Notes and Records*, IV, 73, 74.) The earliest members of this family founded their cemetery on the southern hill and continued to use this cemetery until the accession of the family to the kingship of Meroe.

2. THE ARCHAEOLOGICAL GROUP OF THE ROYAL PYRAMIDS OF THE SOUTHERN CEMETERY AT BEGARAWIYAH.

The royal pyramids of S Cem. which stand at the end of the cemetery and completely exhaust that field are nine in number, of which eight stand along the western bank of the wady and one in the plain at the N.W. of the hill. The order, obvious largely through the physical contacts of the pyramids, is as follows:

- (1) S VI. King of Upper and Lower Egypt, Khnum-ib-rē^c, Pl. XV.
Son of Rē^c, Arikakaman.
Three-room king's type.
- (2) S IV. King's sister, mother of the Pharaoh, Kenreth = Saleran? (or Saluwa?).
Two-room queen's type.
- (3) S II. Chapel destroyed; two-room queen's type.
- (4) S I. " " " " "
- (5) S V. King of Upper and Lower Egypt, Lord of the Two Lands, Ankh-nefer-ib-rē^c.
Son of Rē^c, Lord of the Coronation, Yesruwaman (or Amanyesruwa or Yesruwa-mery-aman).
Three-room king's type.
- (6) S III. Chapel destroyed; two-room queen's type.
- (7) S IX. Chapel destroyed; two-chamber queen's type.
- (8) S X. King of Upper and Lower Egypt, Kalka.
Son of Rē^c, Kaltaly.
Two-room tomb.
- (9) S 503. Hereditary princess, king's wife, Khennuwa.
Two-room queen's type.

The connection between S X built on the very last possible site at the neck of the yoke leading to the next hill and S 503 in the plain is fortunately proved by the identical decoration of the burial chambers, Pl. IV, fig. 2, a decoration found only in these two tombs.

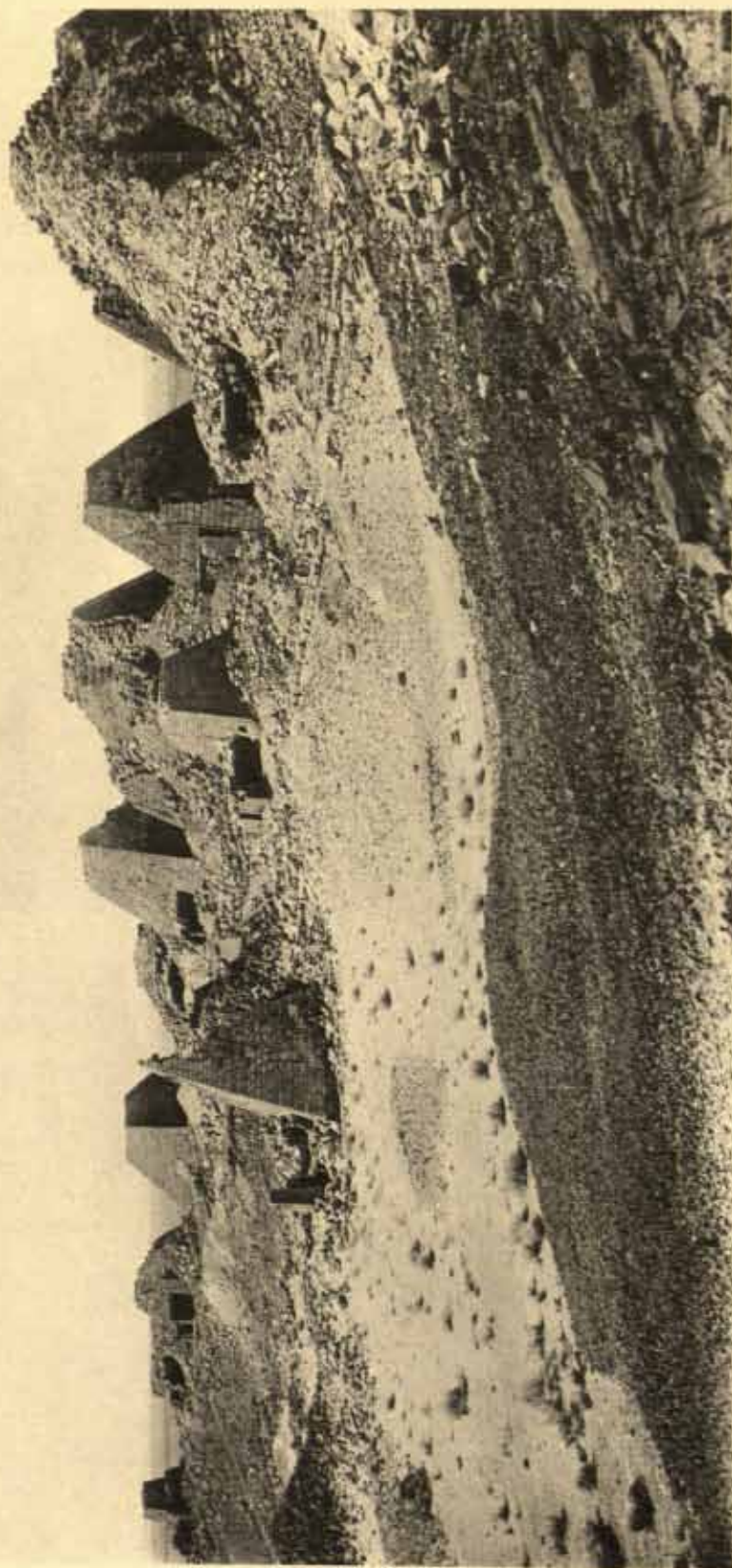
The type-forms of these, the first royal pyramids built at Meroe, approximate to the forms of the last pyramids built at Nuri but present certain significant differences, the most noteworthy of which is the absence at Meroe of an enclosing wall around the pyramid. Differing thus from the Nuri pyramids, the type forms of the group S I—VI, IX, X and 503 form the basis of the whole development of the Begarawiyah pyramids and must be given in detail with the abbreviations which will be used hereafter:

(1) Pyramid.

Type OT,—the old type as at Nuri with stepped faces and plain corners but without plinth-course between the pyramid and the foundation platform or an enclosing wall.

Size,—the size of the two kings' pyramids is about one half the norm of the later Nuri pyramids which were 26.60 metres \pm 30 cm. square. The size of the two-room pyramids is about the same as that of the two-room pyramids at Nuri.

Chapel,—the chapel is of the pylon-type of Nuri *d*-group with offering scenes after the Nuri tradition. Type *oI*.



THE NORTHERN CEMETERY AT BEGARAWIYAH
seen from the N.N.E. before the beginning of the excavations.



1



2

THE NORTHERN CEMETERY AT BEGARAWIYAH.

1. South end looking S.S.E., after excavation.
2. South end during excavation, looking southward from N.VII.
In the centre is Pyramid N.IV.

Foundation deposits,—none (abbreviation N). This is not surprising in view of the decline of the foundation deposits in the last three pyramids at Nuri and their disuse in the last queen's pyramid at that place.

(2) Stairway.

Type F,—the stairway is distinctly of the Nuri type situated east of the chapel and having well-cut steps of an average height of 15—19 cm.

(3) Chambers.

Type O3 or O2,—the Nuri type of burial chambers with three rooms as a rule for kings and two rooms for queens, or occasionally for kings. Moulded doorway. As at Nuri.

Detail on,—coffin bench in the middle of the innermost room and a niche high up in the west wall of the same room. As at Nuri.

Proportional numbers,—these give the value x in the proportion, $x:100::$ length of room: breadth. The numbers are all over 100, which indicates rooms longer than they are wide. As at Nuri.

Percentages of total area,—these give the percentage which the area of each room is of the total floor-area. In the three-room pyramids the third room is larger than the second. As at Nuri.

As I propose at present to deal only with the tombs, not with their contents, the above type-forms stand as representative of the archaeological group of the royal tombs of S Cem., or Beg. group *a*.

3. THE NORTHERN CEMETERY AT BEGARAWIYAH.

When the field at El Kur'uw was exhausted the cemetery of Nuri was begun; when the Nuri field was exhausted the tombs of the kings had to be built at Barkal or Beg. S Cem. So when the Beg. S Cem. was completely filled a new site for the royal tombs was by necessity selected, and the fine ridge of stone visible from the S Cem. only 250 metres away across the Wady Et-Tarabil is obviously the most natural place for the pyramids which followed S X and S 503. A preliminary examination in 1920 showed at once that the central part of the ridge, the primary building sites, actually bore four pyramids of the same OT-type as the S Cem. pyramids, and the subsequent excavations have established the fact that the N Cem. was the continuation of the S Cem.

The formation of the northern ridge is of importance for the growth of the cemetery, Pls. II, III and XIV. The ridge is crescent-shaped, but has several spurs and shoulders. On the *west*, about a third of the way from the southern tip, a broad high spur runs out to the west, and near the northern end another good-sized spur extends westward; but these *western* excrescences were never occupied by tombs because the main ridge held the more desirable sites, and once the main ridge was filled, the western areas became highly undesirable on account of the obscuring of the outlook by the great row of pyramids on the ridge. From the northern end of the main ridge a spur is thrown out to the north-west and two pyramids were built there. A much more important spur, however, runs out to the east from this same northern end of the main ridge and is called the *north-eastern spur*. This is a rough hilly spur rising several metres higher than the main ridge and covered with a heavy layer of ferricrete, so that there were only three suitable sites in its entire

length of nearly 200 metres. On the main ridge and the two high spurs there are 19 pyramid sites actually occupied. The rest of the tombs are on the *eastern slope* of the main ridge which is itself broken by drainage channels into three parts, the eastern spur, the hollow, and the south-eastern spur. The eastern spur is triangular with its base extending for about 100 metres across the faces of the pyramids N VII—X of the main ridge, and descends gently with its apex on a level with the Wady Et-Tarabil about 100 metres to the east. Here stand 13 pyramids. The south-eastern spur bends round eastwards and northwards from the base of the southern end of the ridge but is separated from the ridge by a rather steep initial slope. Between these two spurs the rock descends sharply along the fronts of N II—VI and then slopes gently to the wady on a line with the tips of the two spurs, forming a hollow basin. There are 14 pyramids on the eastern spur, four on the south-eastern spur and three on the low floor of the hollow.

Now it is perfectly obvious that the most suitable and desirable sites for pyramids are those on the main ridge, and the most unsuitable those on the floor of the hollow. The order of suitability of the parts of the cemetery arranges itself naturally between these two points and gives the following for the whole cemetery:

- (1) The main ridge from N I to XIII,—15 tombs.
- (2) The north-eastern spur,—4 tombs.
- (3) The north-western spur,—2 pyramids.
- (4) The eastern spur, 13 pyramids.
- (5) The southern slope of the eastern spur,—1 tomb.
- (6) The south-eastern spur,—4 tombs.
- (7) The lower part of the hollow,—3 tombs.

It will be shown below that the chronological order of the tombs actually followed this order of the suitability of sites, except for three pyramids which were built on *usurped* sites. One of the most important points is this: the *a priori* deduction, borne out by the order of sites at every Ethiopian royal cemetery yet excavated, is that no pyramid would have been built on the eastern slope so long as any suitable site was left vacant on the main ridge and its two equally high prolongations to the north-east and the north-west.

I have said that there were four pyramids of the OT-type of S Cem. visible on the broad middle part of the main ridge where the primary building sites must be sought. These were N III, N IV, N VII and N IX. On excavation, a fifth, a deep stairway with three burial chambers, was found between the stairways of N V and N VI and numbered N LIII. It was also discovered that the burial chambers of N VII and N IX were of an entirely different type, P3 (2 + 2), from those of N III, IV, LIII and the tombs of the S Cem. Thus there are only three tombs, N III, IV and LIII which are actually of the type of the S Cem. and form the connecting link between the two cemeteries. Taking then group *a* of the S Cem. as a starting point, the whole 50 pyramids of the S and the N cemeteries may be arranged into ten groups, lettered *a—j*, by means of the types of pyramids, types of burial chambers, types of foundation deposits and other type-forms. These ten groups are laced together in the order of the lettering by the occurrence of certain type-forms with more than one group. In Table A, I give the groups from *a* to *h* inclusive. The pyramids of each group are also arranged in chronological order, the reasons for which will be indicated briefly below.

TABLE A: BEGARAWIYAH. TYPE-FORMS OF PYRAMIDS TO END OF GROUP *h*.

No. of Pyr. Beg.	Sex of Owner	Type of Pyramids	Size of Pyramids	Type of Chapel Reliefs	Type of t. dep.	Number of steps	Average height of steps	Type of Burial Chamber	Details Chambers	Area Chambers	Prop. num. rooms			Percentage of Total Area		
Group <i>a</i> :			m. sq.				cm.			m. sq.	A.	B.	C.	A.	B.	C.
1. S VI	k	OT	13.75	o1	N	38	14.0	O3	on	48.95	101	120	142	34	26	40
2. S IV	q	OT	6.80	o1	N	28	15.0	O2	on	22.26	128	145	...	45	55	...
3. S II	q	OT	6.63	o1	N	25	15.3	O2	on	26.18	128	123	...	55	45	...
4. S I	q	OT	6.37	o1	N	21	17.4	O2	on	17.93	121	133	...	44	56	...
5. S V	k	OT	13.85	o1	N	30	17.5	O3	on	29.40	104	134	128	44	27	29
6. S III	q	OT	7.63	o1	N	30	12.2	O2	on	19.58	114	118	...	46	54	...
7. S IX	q	OT	7.50	o1	N	17	14.3	O2	on	14.45	102	152	...	34	66	...
8. S X	k	OT	10.47	o1	N	24	17.1	O2	on	15.30	127	146	...	54	46	...
9. S 503 ...	q	OT	10.53	o1	N	21	18.9	O2	on	25.24	161	167	...	50	50	...
Group <i>b</i> :																
10. N IV	k	OT	13.70	o1	N	24	18.5	O2	on	27.20	135	87	...	61	39	...
11. N III ...	q	OT	10.53	o1	N	7 un.	15.4	1 unfin.	...	3.90	...	...	...	...	...	...
12. N LIII ...	k	...	...	o1	...	48	13.3	O3	on	23.23	84	82	125	31	22	47
Group <i>c</i> :																
13. N VII ...	k	OT	(13.70) (17.20)	sp	T	44	16.2	P3(2+2)	t	53.58	53	52	74	31	33	36
14. N IX ...	k	OT	12.65	bt	T	24	38.8	P3(2+2)	t	79.27	57	56	103	49	40	11
Group <i>d</i> :																
15. N VIII ...	k	MC	18.36	o2	T	28	26.0	P3(4+2)	t	62.78	93	54	108	58	26	16
16. N XI ...	q	MC	19.30	o2	G	21	25.2	P3(4+2)	u	58.16	76	54	125	50	38	12
17. N XII ...	k	MC	18.72	o3	G	19	28.9	P3(4+2)	u	48.25	82	73	138	51	35	14
18. N XIII ...	k	MC	18.72	o4	G	23	33.4	P3(4+2)	u	87.82	84	75	126	52	31	17
Group <i>e</i> :																
19. N XX ...	k	MC	15.94	o2	G	26	34.5	P2(2)	o	47.80	...	59	187	...	62	38
Group <i>f</i> :																
20. N XXI ...	k	MC	12.90	o2	G	24	32.9	N2(2)	o	32.87	160	138	...	51	49	...
21. N XIV ...	k	MC	8.78	o2	...	20	22.9	N2(6)	v	20.90	332	138	...	76	24	...
22. N II	k	MC	10.18	o2	G	s+17	20.1	N2(4)	v	24.62	150	110	...	62	38	...
23. N VI ...	q	MC	18.90	o2	G	s+15	37.5	N2(4)	w	27.07	162	91	...	74	26	...
Group <i>g</i> :																
24. N V	p	MC	8.40	sp	B	s+24	10.8	N2(2)	w	35.45	120	86	...	69	34	...
Group <i>h</i> :																
25. N I	q	PC	6.03	sp	N	s+30	16.5	N2(4)	wx3	23.63	169	112	...	60	40	...
26. N LVI ...	p	st	...	...	...	s+12	44.1	...	.x4	...	...	...	...	...	...	...
27. N XXII ...	k	PC	9.00	1a	N	s+37	23.0	N2(4)	wx4	24.90	241	111	...	67	33	...
28. N X	k	PC	14.65	1a	N	21	19.9	1 un.	.x8	2.83	69	...	...	...	...	...
29. N XV ...	k	PC	6.30	q1	N	s+21	38.4	N2(4)	o	27.60	157	108	...	64	36	...
30. N XVI ...	k	PC	6.66	q1	N	11	38.4	N2(2)	y	14.15	154	100	...	72	28	...
31. N XVII ...	k	PC	9.00	q2	N	8	...	N2(2)	z	34.81	111	118	...	75	25	...

(1) GROUPS *a* AND *b* AT BEGARAWIYAH.

From the table it will be seen that the forms of groups *a* and *b* are the same; and if all these pyramids had stood in one cemetery no question could have arisen as to their proximity in time. The two groups together form a joint group which is that of the OT-pyramid and the O3 (or O2)-chambers. The chapels, as far as they are preserved, and the details of the stairways and the underground chambers are also the same, and in every way the type-forms of these tombs are direct descendants of the traditional types of the late period at Nuri. Even the size of the pyramids in the cases of S VI, S V and N IV is about one-half the later Nuri size of 26.60 m. \pm 30 cm. square, while the dimensions of the others correspond to those of the minor pyramids at Nuri. There are two deviations from tradition, the first of no importance and the second of great significance:

- (a) In Pyr. S V, room A has an unusually large percentage (44 per cent.) of the total floor area; but the tradition is maintained in the relations of the areas of room B (27 per cent.) and room C (29 per cent.).
- (b) In N LIII, the marked fall in the proportional numbers of the rooms A and B, 84 and 82 respectively. Thus these rooms are wider than they are long. The widening is significant in that it preceded the adoption of roof supports in the next following group. The same succession of forms is recorded at Gebel Barkal.

I have said above that the order of the pyramids of group *a* was established in part by physical contacts (some of them already noted by Lepsius) and in part by obvious deductions from the relative situations. In group *b* there are only three pyramids to be arranged in order, and one of these, N III, was unfortunately never finished. The order in which I set them here is based on position and on minor details and it is possible that N LIII may be placed before N IV on consideration of the objects found in the tombs.

(2) GROUP *c* AT BEGARAWIYAH.

Group *c*, consisting of N VII, Pl. XVI, and N IX, the two remaining OT-pyramids on the ridge, are situated at comfortable intervals northwards from N LIII, as happens when sites are being selected in a free field. Both these tombs are sufficiently fixed as the successors of group *b* by the pyramid type alone, but they introduce four new features which separate them from group *b* and form the connecting link with the following group, *d*. These are:

- (a) The chambers have become so wide that the roofs have had to be supported by stone pillars, giving the three-room type of chamber which I call P3 (2 + 2), that is, with two pillars in each of the outer rooms, A and B.
- (b) New type of chapel scenes in N VII, copies of scenes from the Book of the Dead with Egyptian inscriptions, manifestly the work of an Egyptian (or Egyptians). The chapel of N IX is blank, but may have had painted scenes and inscriptions.
- (c) New type of coffin bench (A), attached to the west wall of room C and decorated with reliefs and Egyptian inscriptions, and, like the chapel of N VII, the work of an Egyptian (or Egyptians). The bench in N VII, Pl. VI, fig. 2, consisted of a rock-cut core cased with slabs of yellow "pie-crust" sandstone; the bench in N IX was cut in the rock and coated with plaster.
- (d) Foundation deposits (T) consisting of a lump of lead ore and thin tablets (one of gold, one of electrum, one of bronze and one of paste). (See remark on Barkal deposits, later on.)

It is to be noted that in its details N VII is more closely connected with group *b* than is N IX and is therefore earlier in date than N IX:

- i. N VII is an enlarged pyramid consisting of a nearly complete smaller pyramid encased with an addition about 170 cm. thick carried up to a complete pyramid. The original pyramid was about 13.70 m. sq., like S VI, S V and N IV—a fact which connects N VII closely with those pyramids, for it is the last pyramid to show this old half-norm. The completed pyramid was 17.20 m. sq. and appears to have broken the tradition as to size.
N IX was only 12.65 m. sq., but the pyramid is small in proportion to the size of the chambers.
- ii. N VII has steps of an average height of 16.2 cm. corresponding to the older average of 15–19 cm.
N IX has steps of an average height of 38.8 cm. corresponding to the subsequent average of 20 cm. and over.
- iii. N VII, room C, contains 36 per cent. of the total area and is larger than room B (33 per cent.) according to the norms of groups *a* and *b*.
N IX, room C, contains only 11 per cent. of the total area, a relatively small room like that in the pyramids of the following group.

It will be remembered that Ergamenes, who is the king buried in N VII, built the temple of Dakka, and the importation of an Egyptian scribe (or scribes) for the decoration of his tomb appears perfectly natural.

(3) GROUP *d* AT BEGARAWIYAH.

Group *d* consists of four pyramids, N VIII (between N VII and N IX) and N XI–XIII (in a row north of N X), all very closely bound together by the MC type of pyramid, the P3(4+2)-type of burial chambers, by the chapel reliefs, by the stone coffin in room C, by the high steps, by the proportional numbers of the rooms and by the percentages of room areas. The clue to the separation of the pyramids N XI–XIII (see Plates V and XVII for N XII) from N VII–IX by the much later pyramid N X, lies probably in the old Pre-Meroitic stairway tomb which we found under X and numbered X—1 and also in the bad faults in the rock in that place. The cemetery was growing northwards and the builders of N VIII, confronted by the choice of the space left between N VII and IX or passing beyond N X—1 and its bad rock to the north, elected to take the former site. But when N XI was built, no choice was left. The order of the pyramids N XI–XIII is established beyond any doubt by physical contacts.

Now N VIII, although manifestly a member of the group, differs from the other three in two important particulars:

- (a) N VIII has the tablet (T) form of foundation deposits, like group *c*.
N XI–XIII have the gold ring (G) form of foundation deposits like the following groups.
- (b) N VIII has a stone-cased coffin bench decorated with Egyptian scenes in relief but no inscriptions,—again similar to group *c*.
N XI–XIII have no coffin bench but a stone coffin the lid of which is decorated with figures of Osiris, Isis and Nephthys in relief, unlike any other tomb in the cemetery.

These very differences, however, connect N VIII intimately with N VII and IX and prove conclusively that N VIII was the first of the group and next in date after IX, as already deduced from the relative positions of the pyramids. It will be remembered that the high steps and small percentage of room C in N IX connect IX more intimately than N VII with this group *d*.

From these facts the proof is gained that the MC type of pyramid was the direct successor of the OT type and the evidence from Gebel Barkal adds to this that N VIII was the first MC pyramid built in Ethiopia. The change from the P3 (2 + 2)-chambers of N IX to the P3 (4 + 2)-type of group *d* is a most natural development in view of the tendency towards increase in size and ostentation from N VII to N XI.

(4) GROUP *e* AT BEGARAWIYAH.

The two preceding groups, *c* and *d*, contain a series of six large pyramids (17.20, 12.65, 18.36, 19.30, 18.72, 18.72 m. sq.) with spacious chambers (floor areas, 53.58, 79.27, 62.78, 58.16, 48.25, and 87.82 sq. m.) and represent without doubt the greatest period of prosperity of the Meroitic kingdom—that introduced by Ergamenes. The last of these series, N XIII, was the last three-room pyramid built at Meroe and, with the exception of Barkal V, the last in Ethiopia. From N XIII onwards, the pyramids show an erratic but continued decrease in size and expensiveness (with the exception of N VI). Now since the time of Senkamanseken, every king of Ethiopia except Nuri XVII, Beg. SX and N IV had been buried in a pyramid with three underground chambers, and one of the most marked features of the degeneration I have mentioned is the permanent adoption after N XIII of the two-room type of chambers. The obvious conclusion is that the resources of the royal family were declining and forced the royal family, in spite of the love of traditional ostentation, to take the question of expense into account.

The one pyramid in group *e* is a two-room pyramid although still of the pillared type. This is N XX which stands on the broad western end of the north-eastern spur on the next available site after N XIII in the direction of growth of the cemetery during the period of group *d*. It is connected with the *d*-group by the MC type of pyramid, the P-type of chambers, the chapel scenes and the gold ring (G) foundation deposits, and as it is the only remaining pyramid with the P-type of chambers, must certainly be placed next in succession to N XIII. The differences of N XIII and N XX are essentially differences of size and expense, as may be seen from table A. In N XX, it is room A of the P3 (4 + 2)-type which appears to have been omitted and in the Table I have placed the first room in the B column and the second in the C column to facilitate the comparison. It is further to be noted that in the P2 (2)-type, the 38 per cent. of the inner room of N XX corresponds to a 16—19 per cent. in the P3 (4 + 2)-type and the 62 per cent. of the outer room to about 30—31 per cent. of the older type. For jewellery from N XX see Pl. IX, fig. 2.

(5) GROUP *f* AT BEGARAWIYAH.

Group *f* consists of four pyramids which are joined together by the MC type of pyramid, the o2-type of chapel reliefs, the G-foundation deposits, and the N2-type of burial chambers with a plain stone coffin bench in the inner room (B). The group is connected with groups *d* and *e* by the MC pyramid and the G-foundation deposits and with *e* by the two-room type of chamber. The two-room type of chamber appears, however, in a new form, N2, in which the outer chamber has niches in the side walls, leaving thus rock-cut pilasters which

support the roof. In the outer room of N XXI there are two pilasters, N2(2), and the chambers of that pyramid appear to be merely a modification of the P2(2)-type of pyramid N XX. In any case, the niched type is clearly a development of the pillared type obtained by not cutting the pillars free on the face adjoining the side wall. As all the remaining MC pyramids at both Barkal and Begarawiyah have the N2-type of chambers, the actual fact of the chronological succession of the N2 to the P2 form must be accepted.

Group *f* is thus, as a group, next in time to group *e* and consists of the four pyramids, N XXI, N XIV, N II and N VI (the great pyramid of Queen Amanshaketé). They are divided into two pairs by their relative situations, (*a*) N XXI and N XIV at the northern end of the ridge, and (*b*) N II and N VI at the southern end, and by the same facts their order in time is indicated.

- (1) N XXI is on the next available site on the N.E. spur, about 60 metres east of N XX. But the rocky knoll between the two is impracticable for a pyramid site, and the previous growth of the cemetery points to N XXI as the next after N XX.
- (2) N XIV is on the broad base of the N.W. spur close to the N.W. corner of N XIII. The choice of sites lay between this place and the next available site on the N.E. spur. The site on the N.E. spur is that of N LVI and XXII and is about 100 metres beyond N XXI. The intervening ground is lower and broken. The N.W. site is clearly more desirable and its selection indicates probably a direct descent of the king of N XIV from the family of N XI—XIII.
- (3) N II is on the first site south of the old OT pyramid, N III, on the narrow southern end of the main ridge. The width of the spur is barely sufficient for the pyramid (10.18 m. sq.), but the place being in the main row of pyramids is plainly more desirable than that on the N.W. spur beyond N XIV, especially if N II marks the beginning of a new dynasty. The building of N II began a new focus of growth around the southern end of the ridge.
- (4) N VI is the second largest pyramid in the cemetery, 18.90 m. sq., and there was absolutely no *vacant* site left for a pyramid of this size—sure proof that it was built after N XX, XXI, and XIV. The explanation is given by the newly discovered stairway of N LIII which shows that the pyramid N LIII originally stood between N IV and N VII, a little nearer N IV but with comfortable spaces between. This pyramid, N LIII, was destroyed to make way for N VI, and its inscribed stones appear in a number of the later pyramids (N X, N XVI, N XVII, N XL, N XXVI, etc.). In order to avoid the stairway of LIII, the E.—W. axis of N VI had to be shifted nearer N VII, thus leaving between N VI and N IV the space later taken by N V. It is to be noted that the site of the old Pre-Meroitic stairway tomb, N X—1, although sufficient for N VI, was again passed over; but to the old reason, the bad rock, was now added the fact that the southern end of the ridge had become the centre of growth.

Thus the relative positions of the pyramids indicate the order N XXI, XIV, II and VI. This conclusion is borne out by a number of details as follows:

- (1) N XXI and XIV both have well-cut stairway and steps and similar chapel reliefs, all being related to groups *d* and *e*.
- (2) N XXI has the details of the burial chambers like N XX (type *o*).

- (3) N XIV and N II are connected by a detail found only in these two tombs,—a *step up* at doorway B (type *v*).
- (4) N VI has a threshold in doorway B (type *w*), a further development, I think, of the *step up* of N II. The threshold is found also in the following tombs, N V, N I and N XXII.
- (5) N II and N VI have extraordinarily large gold rings in their foundation deposits and similarities in masonry and reliefs.
- (6) N II and N VI have the irregular stairway beginning with a slope and continuing with roughly cut sloping and curving steps which is so characteristic of the following groups.

The effect of these apparently unimportant details is as follows:

- (a) N XXI and XIV are a related pair, connected with groups *d—e* by (1) and (2) above, while N II and VI are a related pair connected with groups *g—h* by (5) and (6) above—thus confirming the result as obtained from the positions.
- (b) Remembering that there are two pairs, the order is given:
 - N XXI is first by (2) above.
 - N XIV is second by (3) „
 - N II is third by (3) „
 - N VI is fourth by (4) „

In regard to the variations in the N2-type shown by these four pyramids, as has been said, the N2 (2) form of N XXI is the natural development from the P2 (2) form of N XX. The N2 (6) form of N XIV looks almost as if the owner had attempted some sort of return to the three-room type and is a variation which might be expected soon after the introduction of the type, but not later. Beginning with N II and N VI, the N2 (4) form becomes traditional for more important rulers and N2 (2) for princes; but the last two N2 pyramids have the N2 (2) form.

(6) GROUP *g* AT BEGARAWIYAH.

Group *g* consists again of a single pyramid, N V, which stands beside the great pyramid of N VI on the south, but forced back by the nature of the space available between N VI and the old N IV. It is also partly on the space occupied by the old N LIII. At the time when N V was built, the only other available site at this end of the cemetery which was then the focus of growth was the site of N I. By its chapel reliefs N I is closely related to N V, but N V was only a crown-prince, not a king, and N I was one of the five great queens honoured with kingly burial in the cemetery. N I therefore would have had the preference in the choice of sites.

N V is still an MC pyramid like those of the preceding groups *d*, *e* and *f* and is the only remaining MC pyramid in the cemetery. It differs from the other MC pyramids, however, in the foundation deposits, which consist of a very small gilded pottery brick instead of the solid gold ring of the preceding pyramids. As no further foundation deposits were found in the cemetery there can be no doubt whatever that N V follows N VI. This position of N V is confirmed by the presence of the north bench and the threshold as in N VI and by the absence of the steps in doorway A which is a feature of N I.

(7) GROUP *h* AT BEGARAWIYAH.

The group *h* (N I, N LVI, N XXII, N X, N XV, N XVI, N XVII) includes the remaining pyramids of the main ridge and two pyramids of the upper part of the eastern slope. These all have a new type of pyramid which resembles the OT type in having stepped faces and plain corners but differs as follows: the masonry is generally more careless; the lines of the courses in N XXII do not always agree with the lines of the steps; alterations of height of courses are more frequent and the stone comes usually from more than one quarry. The positions of these pyramids (*a*) on the outskirts of the ridge, (*b*) on an usurped site, and (*c*) on the eastern slope prove conclusively they are not of the original OT type, but a later reversion to that type or copy of it. In N X, N XVI and N XVII the masonry even includes re-used inscribed stones apparently from the chapel of N LIII which was destroyed when N VI was built.

N I, which I have classed as a PC pyramid in contradistinction to the preceding MC pyramids, is a step-pyramid built in three stages probably in imitation of the step-pyramid of the *queen* buried in Bark. VIII, an OT step-pyramid. And, it may plausibly be concluded that in copying the OT step-pyramid of Barkal, the queen of N I reintroduced fortuitously the plain corners of the OT pyramid and so created the PC type. Dr Budge, who destroyed the remains of Beg. N XV, says it also was a step-pyramid, but I have been unable to discover any confirmation of the observation. N XV was the tomb of a king.

Now N I is proved by the reliefs of the chapel with their scenes from the Book of the Dead and their Egyptian inscriptions to be the work of the same hands as those which built N V. By this fact these two tombs are not only united but, as a group, are separated from all other pyramids. There are of course other connecting links—the N2 type of chambers and the north bench with threshold in doorway. And there are also minor differences, but in each case of a difference the special features of N V connect it with N VI (the MC pyramid and presence of a foundation deposit where N I and the following pyramids have none), while the special features of N I connect it with N XXII (the deep steps in doorway A and the plain corners of the pyramid). In view of this intimate connection between N V and N I, I have no hesitation in identifying the crown-prince of N V with the Arikharêr and the queen of N I with the Amantêre who appear as members of the same family on the walls of the Lion Temple at Naga, the Amûn Temple at Meroe and the Moscow stela.

With the construction of N V and N I the very last available sites on the southern part of the ridge were all occupied and, on the whole ridge, only three widely separated sites at some distance from N I were available: (*a*) the knoll on the distant end of the N.E. spur, N LVI and XXII; (*b*) the site of the old Pre-Meroitic tomb, N X—1, between N IX and N XI where the rock strata were faulty, and (*c*) the small site on the slope of the N.W. spur north of N XIV. The relative desirability of these sites is not obvious, and all three are occupied by PC pyramids, leaving the order to be deduced from the details of the type-forms. But there can be no question that the two tombs, N XVI and N XVII, which are on the upper part of the eastern spur of the eastern slope, are later than all those on the ridge.

Of the four tombs on the ridge (N LVI, XXII, X and XV), N XXII approaches in its type-forms most closely to N I. The distinguishing feature which these two tombs present and which differentiates them from all others except N LVI and N X, is the very

deep drop in doorway A, broken by steps. The chapel reliefs of N XXII are, however, of a different style from those of N I, resembling the workmanship of the Amûn Temple at Naga and the Amara Temple. Unfortunately the inscriptions, except the names, have not been preserved, but were probably in Meroitic hieroglyphics. The name is Amennutok = Kheperkerê, and in view of the close proximity in time to N I, I identify him as the Netekamani = Kheperkerê of the temple inscriptions at the Lion Temple at Naga, the husband of Amantêre of N I and the father of Arikharê. I may add that I reach the conclusion (explained in another place) that there was only one royal pair, Netekamani and Amantêre, and that Arikharê, Arikhatani and Shêrakarê held in succession the rank of crown-prince through the death in turn of Arikharê and Arikhatani and that Shêrakarê finally came to the throne on the death of his father.

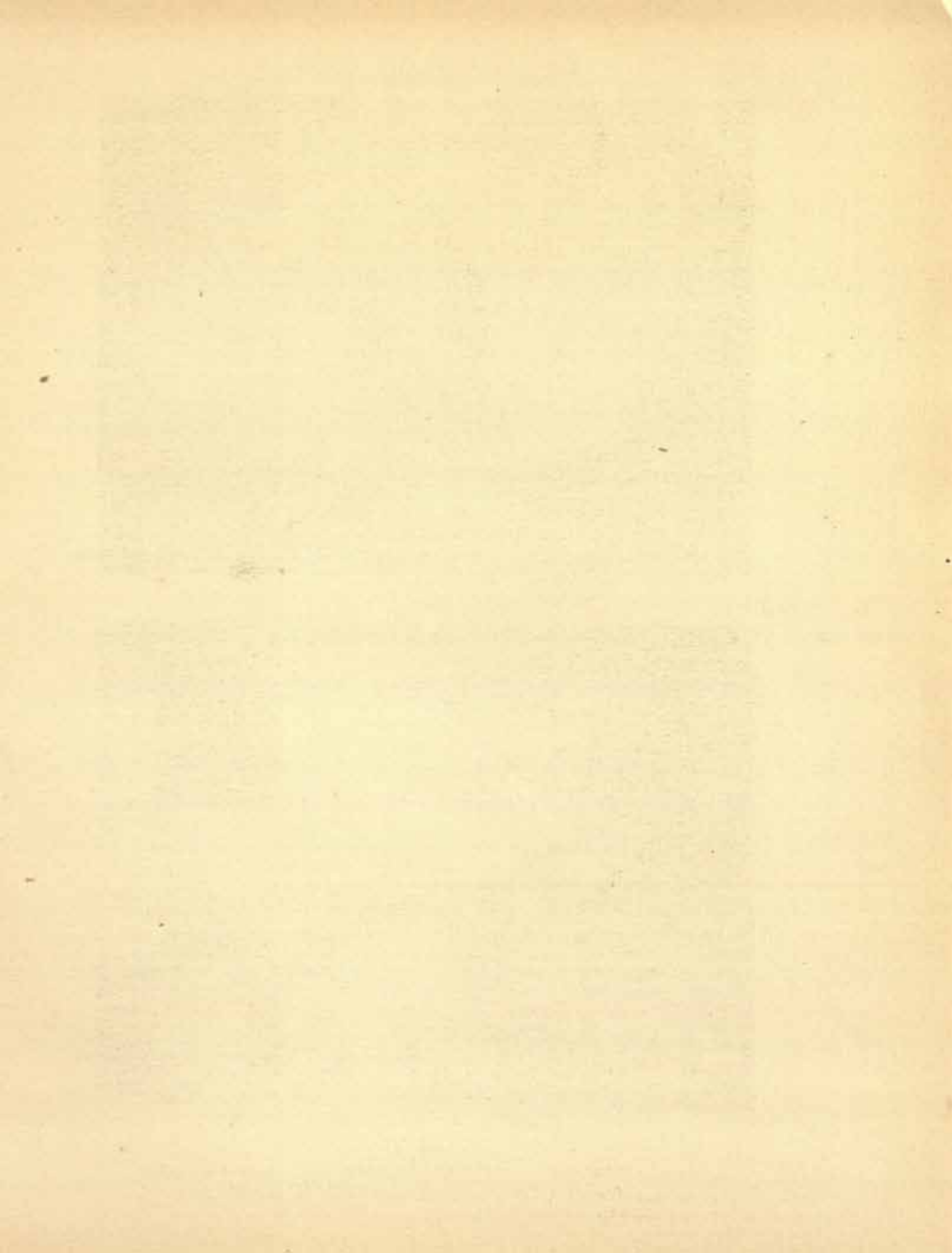
Now I have mentioned the close connection between N XXII and N I; but there is one other tomb, a stairway tomb whose pyramid was never built, which is close beside the stairway of N XXII and is clearly earlier than N XXII. The presence of this stairway forced Netekamani to build his pyramid to the north of the middle of the knoll which forms the end of the north-eastern spur and to turn it with the stairway at an unusual angle, south of east. N LVI is unfortunately not yet completely excavated because the roof of the outer chamber has collapsed and the whole of the fallen rock must be cut out from the surface down, a task we were unable to finish in 1921-22. But enough of the stairway and the entrance has been recorded to show that the stairway is very similar in size and form to that of N XXII. The burial had been made and the doorway blocked up as usual, but the pyramid was never built, a most extraordinary occurrence which could only have been due to unusual circumstances. It is surely not unreasonable to ascribe this unfinished royal tomb to Arikhatani, the second crown-prince of the family of Netekamani and Amantêre to die in the life-time of the parents. A crown-prince would scarcely have his tomb prepared before he came to the throne while his father's tomb was yet unbuilt. If he had died suddenly, his father would have the burial chambers excavated as quickly as possible and postpone the building of the pyramid until after the funeral. In the case of Netekamani, who was certainly by this time an old man and not far from the end of his reign, the building of the pyramid of Arikhatani might easily have been postponed until Netekamani died and was succeeded by Shêrakarê. The temple of Amara dates from the period after the death of Arikhatani; and preoccupation with that building may well have delayed the building of the pyramid of N LVI.

Thus the three pyramids N I, LVI and XXII are separated from the rest of the group, leaving four, of which N X and XV are on the main ridge and two, presumably later, on the lower eastern spur, N XVI and XVII.

N X. Has at last usurped the Pre-Meroitic site of N X-1; PC pyramid not continued above top of pylon; chapel reliefs of late style, unfinished, but the *last with false* door on west wall; stairway twists round by eight steps inside doorway A, to avoid fault in rock; single unfinished chamber but with niche begun in one corner.

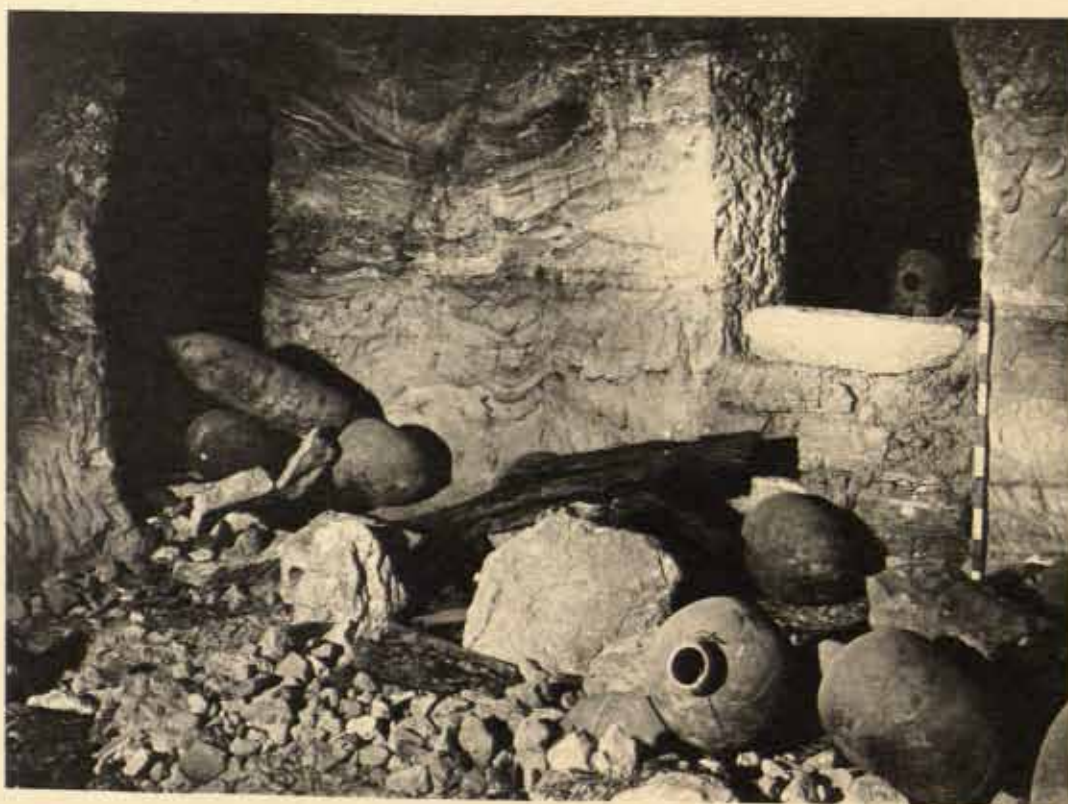
N XV. Built on N.W. spur, below N XIV, and the most obscure site on the ridge; chapel scenes present a contracted form, with Isis, seated king, Nephthys and Anubis on west wall and *processions only* on the side walls. (Cf. N XVI.)

N XVI. On the primary site of the eastern spur, between the stairways of N VII and N VIII; as noted by Lepsius, the pyramid had been nearly completely re-





1



2

BEGARAWIYAH.

1. Interior of burial-chamber of Queen Khennuwa, S.503, as seen on opening.
2. Interior of tomb of King Amanitenmêmize (N.XVII) as left by the plunderers. About 50-75 A.D.

moved and reconstructed (very roughly) with the chapel inside the pyramid; the excavations show that this reconstruction took place when N XXXVI was built in order to gain the space occupied by the chapel of N XVI for the pyramid of N XXXVI; the *chapel reliefs present the peculiar contracted form of N XV* which occurs only in these two.

N XVII. Pl. IV, fig. 2. On the second site of the eastern spur, between the stairways of N VIII and N IX; *the pyramid is built over the stairway*,—that is, after the burial; the site originally selected for the pyramid must have been higher up so that the east face of the chapel would clear the west end of the stairway, and this fine site was never occupied thereafter; the chapel scenes are unique, consisting of a west wall like N XV and XVI, a south wall with the traditional offering scene, and a north wall showing standing Osiris supplicated by the king with processions behind the king.

All these are PC pyramids with N2-chambers, including the unfinished N X. It must be remembered that the two on the ridge are presumably the earlier. Now N X with its false door on the west wall is more closely connected with the older pyramids with *o2*-chapels, while N XV with its peculiar west scene is firmly attached to N XVI. To these facts may be added that N XV, XVI and XVII have on the façade of their chapels rectangular inlay-places once containing blue faience plaques (usually with a bull and other figures in relief), and this feature is seen in the later pyramids N XVIII and N XIX but is not recorded for N X or any previous pyramid. Moreover N XV has chambers of the N2 (4)-type presented by the pyramids N II, VI, I and XXII, while N XVI and XVII, although tombs of kings, have the N2 (2)-type. All this evidence taken together permits only one order,—N X, N XV, N XVI, and N XVII.

(8) GROUP *i* AT BEGARAWIYAH.

With N XVII the old series of type-forms comes, for the most part, to an end, especially the PC pyramid and N2-chambers, both of which have been traced above through intervening forms from the OT pyramid and O-chambers of the S Cem. down to the end of group *h*. Groups *i* and *j* present a new pyramid-type, built of various materials, but always of one form,—the smooth-faced pyramid with plain corners standing on a platform, and a new chamber-type with small doorways, a deep drop at each door and roughly cut oval or rounded rectangular chambers without niches or pillars (D-type). The introduction of the new types simultaneously in group *i* produces the appearance of a separation in time between that group and group *h*. But this appearance is fallacious, for the new types of pyramid (ASPC) and chambers (D2 or D1) *had already been in use for some time in the W Cem*. It will be seen from Table A that in group *a* queens were buried in the same cemetery with kings as at Nuri at the rate of about two queens to one king; but in the groups *c*—*h*, inclusive, only three queens occur along with 15 kings and one crown-prince.

The question naturally arises as to the place of burial of the other queens who, counting only those honoured with burial in a pyramid, should have been at the former rate about 27 in number. It will be proved elsewhere that *sâti*-burial was practised in the royal tombs of Meroe both at the N and at the W Cem. (cf. Strabo, *Geog.* XVII. ii. 3 end). But it is improbable that queens and princes of the blood royal would be subjected to this custom. Thus it was that the W cemetery was begun as the cemetery of the minor members of the

royal family in continuation of the old family cemetery on the Southern Hill. Thus the royal part of the S Cem. was continued by N Cem.; and the family part by W Cem. As a result the tombs of the W Cem. followed a nearly independent development based on the traditional forms of the minor tombs of the S Cem., and in particular on the sloping-faced pyramid and the single-chamber stairway-tomb. For example, one of the earliest pyramids yet excavated in W Cem. is W XXX, a pyramid-tomb of this type. The sloping-faced pyramid continued in favour, practically in the ASPC form, throughout the period of gold ring foundation deposits (contemporaneous with groups *d* and *e* at the N Cem.) and the MC pyramid was introduced in the W Cem. after the ASPC pyramid. Consequently when N XVIII was built, being the first ASPC pyramid with D2-chambers in the N Cem., there were masons in Meroe skilled in the construction of ASPC + D1 tombs in the W Cem. These facts leave no ground for assuming any interval of time between the groups *h* and *i* in the N Cem.

In order to permit a view of the characteristics of the pyramids with the ASPC-type of pyramid, I give the following Table B. The column of foundation deposits, which have ceased, and those of the proportional numbers and percentages, which no longer have any significance, are omitted. On the other hand, a new column is added marking the place of the stair—whether in front of the pyramid or under it—and two other columns appear giving the height and nature of the drop at the doorways.

TABLE B: BEGARAWIYAH. TYPE-FORMS OF PYRAMIDS, GROUPS *i* AND *j*.

	PYRAMID				STAIRWAY			CHAMBERS				
	Sex of Owner	Type of Pyramid	Size of Pyramid	Type of Chapel Reliefs	Steps		Type	Floor Area	Steps in Doorway			
					Number	Height			A.	B.		
Group i:			m. sq.				cm.		m. sq.			
32. N XVIII.....	k	ASPC	7.83	1a	F	5 s + s	irr.	D2	19.70	1 (-190)	1 (-116)	portico
33. N XL.....	k	RPBP	4.95	1a	F	5 irr.	36.6	D1	5.50	1 (- 45)	...	...
34. N XXXIV.....	k	ASPC	8. ±	1a	F	s + s 3 s	irr.	D2	40.30	3 (-198)	2 (-120)	portico
35. N XXXVIII.....	k	RPBP	7.46	1a	F	s + s + s	irr.	D2	14.70	2 (-135)	2 (-104)	portico
36. N XLI.....	k	RPBP	5.96	1a	F	5 ss	37.6	D2	11.20	1 (-131)	1 (- 64)	...
37. N XXIX.....	k	RPBP	8. ±	1a*	F	s + s + s	irr.	D2	22.40	3 (-109)	1 (- 75)	portico
Group j:												
38. N XXX.....	k	RPBP	8.00	1a	S	s + s + s	irr.	D2	44.60	2 (-132)	2 (-126)	portico
39. N XIX.....	k	ASPC	7.30	1a	S	covered	...	D2	16.20	1 (-102)	1 (- 95)	portico
40. N XXXII.....	q	RPBP	4.95	1a	S	s + s + s	irr.	D2	9.01	1 (- 77)	1 (- ...)	...
41. N LV.....	...	...	...	...	...	4 irr.	34.0	D1	3.00	1 (- 33)	...	...
42. N XXXVII.....	...	briP	5.20	...	S	11	17.2	D2	13.18	1 (-105)	2 (- 40)	...
43. N XXXVIII.....	k	briP	5.60	1a	S	s + 4 irr.	37.0	D2	9.70	1 (- 94)	1 (- 47)	portico
44. N XXXVI.....	k	RPBP	6.30	1a	S	s + 6 irr.	17.0	D2	9.20	1 (- 98)	1 (- 12)	portico
45. N XXXV.....	...	...	...	...	S	7 irr.	23.0	D1	5.90	1 (- 95)	...	...
46. N LI.....	k	RPBP	(6.52) (8.03)	1a	S	s + 4 irr.	37.0	D2	7.60	1 (-114)	1 (- 96)	portico
47. N XXIV.....	k	RPBP	6.30	1a	S	s + 5 irr.	29.0	D2	11.95	3 (-135)	1 (- 50)	portico
48. N XXXVII.....	k	RPBP	6.60	1a	S	s + 4 irr.	35.0	D2	14.90	2 (- 64)	2 (- 58)	portico
49. N XXVI.....	q	rubP	6.27	1a	S	s + 10 irr.	18.2	D2	7.30	1 (- 73)	1 (- 67)	portico
50. N XXV.....	k	rubP	7.23	1a	S	s + 3 irr.	63.0	D2	10.30	1 (- 46)	1 (- 29)	portico

The only marked distinction between group *i* and group *h* lies in the position of the stairway. The pyramids are all of the same type,—the smooth-faced pyramid with plain corners founded on a platform, and the various designations of pyramid-type indicate differences of material: *ASPC* is of stone masonry; *RPBP* designates a brick pyramid on a rubble platform; *briP*, a brick pyramid on a brick platform; and *rubP*, a smooth-faced rubble pyramid with false rubble platform (or none). The chambers are also either of the D2 or D1-types, and there is nowhere much difference except in size and the care bestowed upon their construction. But six pyramids have the stair on the east of the chapel, in the place fixed by a tradition now traced back to the tomb of Shabaka, and *broken only once (by N XVII) in seven centuries*. The other 13 have the pyramid built directly over the stairway. It is perfectly obvious that those with the front stairway (F) must be earlier than those with the stairway under the pyramid (S).

It must be noted that in the 13 cases of §-stairway, the pyramid, at least, must have been built after the interment although its ground-plan and the chapel might have been prepared beforehand. The uniform excellence of the stone chapels and their reliefs, as compared with the poor construction of most of the pyramids, would be easily explicable if the chapels had been built under the supervision of their owners and the pyramids constructed after the burial.

Group *i*, consisting of N XVIII, XL, XXXIV, XXVIII, XLI and XXIX, Pl. XVIII, is marked as the earlier, not only by the position of the stairways but by the sites occupied by the pyramids on the eastern slope. Every one of them is on the eastern spur, the most desirable part of the slope and on the best sites on the spur, *except for the places taken by XVI and XVII*. The §-type tombs on this spur, five in number, are either on the sides and end of the spur or marked by contacts as later.

When group *h* came to an end with N XVII, the cemetery was growing across the upper end of the eastern spur towards the north. The next site indicated by this line of growth is obviously that between the stairways of N IX and N X which is now occupied by N XVIII, and I can find no possible reason for any other conclusion than that XVIII was built next after N XVII. N XVIII is one of the best constructed pyramids in the whole cemetery, and although the pyramid itself is only 7.83 m. sq., the chapel has an entirely new feature, namely, a portico of three pairs of columns in front of the pylon with the architraves let into holes in the façade. This new feature was copied in most of the succeeding pyramids and may have been introduced to mark the difference between this royal tomb and the similar *ASPC* pyramids of the W Cem. It may be added that N XVIII, like the earlier N XV, XVI and XVII and the later N XIX had inlaid faience plaques on the façade of the pylon.

After N XVIII the next site in order of suitability and direction of growth was that between the stairway of N X and the great projecting pylon of N XI. This site is now occupied by the two small *RPBP* pyramids numbered N XL and XLI¹. N XL is in the middle of this space while N XLI is crowded in between N XL and the pylon of N XI, leaving no doubt that N XL was the earlier of the two. After this site the next is manifestly that of the ruined pyramid N XXXIV which was larger than N XVIII, had twice the floor area in its chambers and appeared from the inscribed stones to have been

¹ The pair beyond N XI, marked A 42 and 43 by Lepsius, do not exist and never have existed. The masonry noted by Lepsius was simply platform-masonry belonging partly to N XI and partly to N XII. We cleared the whole area to rock.

quite as elaborately decorated. N XXXIV stood nearly in the middle of the lower part of the spur, opposite the space between N XVII and N XVIII with its stairway beginning beyond the portico of the chapel and running far out to the east (under the N.E. corner of N XXIX). The site where N XL and XLI stand was not large enough to take N XXXIV and its stair and therefore it is not advisable to place these pyramids in the order of site desirability without further consideration. Under the circumstances, N XXXIV might have been (a) previous to N XL, (b) after N XL but before N XLI or (c) after N XLI.

The next site in order is certainly that of N XXVIII which is south of the outlook of N XVII, while N XXIX not only obscures that outlook, but also partly covers the stairway of N XXXIV. N XXIX would have been built a few metres further south to clear the stairway of N XXXIV and the outlook of N XVII if the site of N XXVIII had not already been taken. The three tombs, N XXXIV, XXVIII and N XXIX have this in common that they have very deep drops at the doorways broken by steps. The doubt as to the relation in time to N XL does not arise in the case of N XXVIII and N XXIX, as either could have been built on the site of N XL and must be judged to be later than that tomb. Thus the order of the large tombs of group *i* is N XVIII, N XXXIV and N XXIX, while N XL is after N XVIII, and N XLI is later than N XL. The order of Table B is, therefore, only provisional as far as it regards the two small members of the group, as it depends at present on certain apparent facts which require further investigation before being stated.

(9) GROUP *j* AT BEGARAWIYAH.

Group *j* includes all the remaining tombs in the N Cem., those in which the pyramid was built over the stairway. Once before, a pyramid (N XVII) of entirely different type (PC + N2 (2)) had, through unforeseen circumstances, been built over its stairway, but in group *j* the §-position of the stairway was permanently adopted. Considering the general superiority of the eastern spur over the rest of the eastern slope and the fact that the focus of growth of the preceding group was the eastern spur, the earliest pyramids of group *j* should be those on the eastern spur and indeed continuing the direction of growth from N XXIX northwards. Here stand the three pyramids N XXX, N XIX and N XXXII of which N XXX is the next north of N XXIX.

- (a) N XXX. The pyramid, the next north of XXIX, stands on the N.E. edge of the tip of the spur on ground which slopes sharply *under the pyramid* with a fall of one metre from front to back and a more gentle fall northwards; west of the back is a flat area, artificially levelled, about 8 × 12 m. sq., clear of standing pyramids (N XXXIV, XIX and XXXII) which is most naturally explained by assuming that the original plan was to build the pyramid on this space west of the stairway (as at N XVII); N XXX has steps at doorways like the larger tombs of group *i*.
- (b) N XIX. The pyramid is on the northern edge of the spur, on sloping ground, having been set northwards to clear with its outlook the northern side of N XXX; if N XIX had been built before N XXX, it would certainly have been set forward and southward on the level place behind N XXX and built with an F-stair; in its present position an F-stair was impracticable.
- (c) N XXXII. The very small pyramid is crowded close to the N.W. corner of N XXXIV and the east end of the stair of N XVIII, leaving a narrow passage between it and N XIX; forced into its position on very bad ground by the previous construction of N XIX.

I take it then that N XXX was intended to stand on the levelled site at the N.W. corner of N XXXIV; the king died unexpectedly and the pyramid was built over the stair as at N XVII. As Tarekenizel(?) of N XIX is manifestly the successor of this king, he must have ordered the building of the pyramid of N XXX. I imagine that he already foresaw the impossibility of finding a place for his pyramid if N XXX were built on the intended site and was influenced by that consideration in placing N XXX forward over the stair to leave room for N XIX. Even so, there was practically no room for placing the stairway of N XIX in front of the pyramid, and thus two pyramids in succession were built over their stairways. N XIX is so well built and the chapel so elaborately decorated for the period that the materials must have been assembled on the spot and the chapel, at least, built before the king's death. The queen of the small pyramid N XXXII was certainly closely related to Tarekenizel(?) and naturally followed the precedent of the last two pyramids in placing her pyramid over the stair. Three examples of the §-stairway in succession were quite sufficient to establish that type as a tradition.

Two other tombs are situated on the eastern spur, N LV and N XXXVI, but both are on the southern side; N LV is between N XVI and the stairway of N VIII while N XXXVI is on the edge of a bluff close to the S.E. front of N XVI; N XXXVI is of course later than N LV or it would have been built on that better and clearer site. As it was, the chapel of N XVI had to be removed to make way for XXXVI. (See above under group *h*.) As this alteration would not have been undertaken except under pressure of circumstances, it is difficult to place N XXXVI in the table; but it seems to me that a very probable time was after N XXXVII and XXXVIII were built on the higher part of the south-eastern spur, and the choice of site lay between the lower part of that spur (a metre lower) or going back to near N XVI (three metres higher). N XXXV, which is a small D1-tomb whose pyramid was destroyed by Ferlini, is situated on the northern slope of the eastern spur, close below N XXXVI and seems to be dependent on that pyramid as N XXXII on N XIX (perhaps therefore it is that of the queen).

N LI, Pl. XIX, is certainly later by position than N XXXVIII and XXXVII, and indicates the direction of growth. In order of suitability of sites N XXIV follows N LI, and then come N XXVII, N XXVI, Pl. VI, fig. 1, and N XXV. There are various details which confirm this order, but I give all the latter part of Table B with the reservation that the order may be subject to minor changes after the complete excavation of W Cem. It is possible that W Cem. may yield further material for the classification of details by the objects found in the tombs.

(10) EXPLANATION OF TABLES I—III.

The three tables nos. I—III have been prepared to present the evidence contained in sections no. 1 to no. 8 above in a form which may be easily grasped by the eye. These tables are in two parts, (1) Similarities and (2) Differences. Table I gives the comparison of the pyramids of groups *b*, *c* and *d* with group *a* (the pyramids of the S Cem.). Under "similarities," it will be seen that the characteristics of group *a* are gradually lost as the eye passes to the right. The OT pyramid-type is the last to persist and this disappears in the fifth column (group *d*, N VIII). Under "differences," the variations from the type-forms of group *a* are seen to accumulate until an absolutely new set of forms has been developed,—those which belong to group *d*. In order to grasp the evidence of the table it is not really necessary to know the meanings of the symbols but only to remember that the same symbol means the

same thing wherever it occurs. The transfer of the symbols from the left of the upper part of the table to the right of the lower part shows clearly the development of the new group of type-forms. It will be noted (1) that the symbols T and t, in the lower part tie together the OT and the MC pyramid as well as the P3 (2+2) and the P3 (4+2)-chambers; (2) that the P3 (4+2)-chamber and the MC pyramid connect the T and G foundation deposits, the *t* and *u* details of the chambers.

Table II compares the pyramids of groups *f*–*h* with those of group *d*. Here the new group of forms of the last two columns of Table I is repeated in the first two columns of Table II and form the starting point of the variations of the succeeding tombs. In the upper part of the table the same phenomenon is seen of the disappearance of the symbols of the first two columns as the eye passes to the right. In the eighth column only the pyramid type remains and the upper part of the ninth column is empty. Under "differences," the variations again gradually accumulate until in the last column the entirely different group of forms has developed which are characteristic of the first pyramid of group *i*.

Table III presents the comparison of the type-forms of the remaining pyramids of group *h* and the first pyramid of group *i* with the first pyramid of group *h*. Here the variations of form characteristic of N I (first column) are better maintained through the columns to the right. The most noticeable points are the introduction of the chapel scenes of types q1 and q2 (owing to poverty) and the placing of N XVII (seventh column) over its stairway. Thus the changes in type-forms are of a different character from those of Tables I and II. The development of the new group of forms of the last column (N XVIII) appears rather suddenly in accordance with the explanation already given above (section 8).

TABLE I.
COMPARISON OF TYPE-FORMS OF GROUP *a* WITH THOSE OF GROUPS *b*–*d*.

(1) SIMILARITIES: Type-forms of ...	Group <i>a</i>	Group <i>b</i>	Group <i>c</i> N VII	Group <i>c</i> N IX	Group <i>d</i> N VIII	Group <i>d</i> N XI–XIII
Pyramid	OT	OT	OT	OT	.....	.....
Chapel	o1	o1	.....	.....	.....	.....
F. deposit	None	None	.....	.....	.....	.....
Stair, steps	low	low	low	.....	.....	.....
Burial chambers ...	O3, O2	O3, O2	.....	.....	.....	.....
Details of same	on	on	.....	.....	.....	.....
Rooms, proportions	long	long	.....	.....	.....	.....
Room C, size	large	large	large	.....	.....	.....
(2) DIFFERENCES:						
Pyramid .....	.....	.....	.....	.....	MC	MC
Chapel .....	.....	.....	sp	b1	o2	o2, o3, o4
F. deposit .....	.....	.....	T	T	T	G
Stair, steps .....	.....	.....	.....	high	high	high
Burial chambers ...	.....	.....	P3 (2+2)	P3 (2+2)	P3 (2+2)	P3 (4+2)
Details of same .....	.....	.....	t	t	t	u
Rooms, proportions	.....	wide	wide	wide	vary	vary
Room C, size .....	.....	.....	small	small	small	small

TABLE II.

COMPARISON OF TYPE-FORMS OF GROUP *d* WITH THOSE OF GROUPS *f*—*h*.

(1) SIMILARITIES: Type-forms of...	Group <i>d</i> N VIII	Group <i>d</i> N XI—XIII	Group <i>e</i> N XX	Group <i>f</i> N XXI	Group <i>f</i> N XIV	Group <i>f</i> N II	Group <i>f</i> N VI	Group <i>g</i> N V	Group <i>h</i> N I
Pyramid	MC	MC	MC	MC	MC	MC	MC	MC	.....
Chapel.....	o2	o2, o3, o4	o2	o2	o2	o2	o2	.....	.....
F. deposit	T	.....	.....	.....	.....	.....	.....	.....	.....
Stair, steps.....	high	high	high	high	high	.....	.....	.....	.....
Burial chambers ...	P3 (4+2)	P3 (4+2)	.....	.....	.....	.....	.....	.....	.....
Details of same	t	.....	.....	.....	.....	.....	.....	.....	.....
Rooms, proportions	vary	vary	.....	.....	.....	.....	.....	.....	.....
Room C, size	small	small	.....	.....	.....	.....	.....	.....	.....
(2) DIFFERENCES:									
Pyramid .....	.....	.....	.....	.....	.....	.....	.....	.....	PC, step
Chapel.....	.....	.....	.....	.....	.....	.....	.....	sp	sp
F. deposit .....	.....	G	G	G	G	G	G	B	None
Stair, steps.....	.....	.....	.....	.....	.....	s+17 irreg.	s+15 irreg.	s+24 irreg.	s+30 irreg.
Burial chambers ...	.....	.....	P2 (2)	N2 (2)	N2 (6)	N2 (4)	N2 (4)	N2 (2)	N2 (4)
Details of same .....	.....	u	o	o	v	v	w	w	w+x

TABLE III.

COMPARISON OF TYPE-FORMS OF GROUP *h*, N I, WITH THOSE OF GROUPS *h*—*i*.

(1) SIMILARITIES: Type-forms of...	Group <i>h</i> N I	Group <i>h</i> N LVI	Group <i>h</i> N XXII	Group <i>h</i> N X	Group <i>h</i> N XV	Group <i>h</i> N XVI	Group <i>h</i> N XVII	Group <i>i</i> N XVIII
Pyramid	PC, st	PC	PC	PC	PC	PC	PC	.....
Chapel.....	sp	unf.	1a	1a	.....	.....	.....	1a
Stair: place	front	front	front	front	front	front	.....	front
steps	s+30	s+12	s+37	unf.	s+21	11	under	5+s+s
form	irreg.	irreg.	irreg.	irreg.	irreg.	irreg.	under	irreg.
Burial chambers ...	N2 (4)	N2 (7)	N2 (4)	N(unf.)	N2 (4)	N2 (2)	N2 (2)	.....
Details of same	w+x	+x	w+x	+x	.....	.....	.....	.....
(2) DIFFERENCES:								
Pyramid .....	.....	.....	.....	.....	.....	.....	.....	ASPC
Chapel: scenes .....	.....	.....	.....	.....	q1	q1	q2	.....
plaques .....	.....	.....	.....	.....	plaq.	plaq.	plaq.	plaq.
portico.....	.....	.....	.....	.....	.....	.....	.....	portico
Stair: place .....	.....	.....	.....	.....	.....	.....	under	.....
steps .....	.....	.....	.....	.....	.....	.....	.....	.....
form .....	.....	.....	.....	.....	.....	.....	.....	.....
Burial chambers ...	.....	.....	.....	.....	.....	.....	.....	D2
Details of same .....	.....	.....	.....	.....	o	y	x	deep

A fourth table for the rest of group *i* and the pyramids of group *j* is not given as it does not differ essentially in appearance from Table B. The variations in pyramid-type due to changes in wealth, and the restriction of the variations of the burial chambers to details make it impossible to detect any tendency except impoverishment in the variations of form. The facts therefore do not lend themselves to tabulation. I trust that the argument for the order of *i* and *j* given in sections (8) and (9) may be sufficiently clear in themselves.

II. THE CHRONOLOGICAL ORDER OF THE PYRAMIDS AT BARKAL.

The problem of the chronological order of the pyramids at Barkal may be best approached through a comparison of their type-forms with those of the pyramids at Begarawiyah.

1. COMPARISON OF BARKAL WITH BEGARAWIYAH TYPE-FORMS.

Using the same abbreviations as in Table A, the following table gives the characteristics of the Barkal Pyramids:

TABLE C: GEBEL BARKAL. TYPE-FORMS OF PYRAMIDS.

	PYRAMID					STAIRWAY		BURIAL CHAMBERS			BURIAL CHAMBERS					
	Sex of Owner	Type of Pyramid	Size of Pyramid	Type of Chapel Reliefs	Foundation Dep.	Number of steps	Average height of steps	Type	Details	Floor Area	Proper numbers			Percentage of Total Area		
Group <i>a</i> :			m. sq.				cm.			m. sq.	A.	B.	C.	A.	B.	C.
51. B XI.....	k	OT	26.30	ol	N	69	16.2	O3	o	94.27	100	112	158	28	27	45
52. B XII.....	q	OT	8.00	ol	N	25	19.2	O2	o	22.95	106	119	...	43	57	...
53. B XIII.....	q	OT	7.85	ol	N	25	19.2	O2	on	22.63	111	109	...	48	52	...
54. B XIV.....	k	OT	5.63	ol	N	34	15.2	O3	zn	13.97	67	57	83	24	37	39
55. B XV.....	k	OT	7.80	ol	L	31	16.1	O3	zn	15.47	86	84	92	27	31	42
56. B XXIV...	q	OT	5.10	ol	L	8	16.3	O1 triang. ...	em	3.00	100	triangular			...	...
Group <i>b</i> :																
57. B XVIII...	k	OT	10.85	...	L	30	16.2	O2	on	19.53	59	110	...	33	57	...
58. B XIX.....	q	OT	7.82	ol	T	10	17.0	O1 unfin. ...	hn	2.81	148	unfinished			...	...
Group <i>c</i> :																
59. B VII.....	k	OT	13.30	o3 tr	T	47	18.9	P3(2+2+2)	zn	56.52	72	72	115	32	33	35
60. B VIII.....	q	OT	9.80	o3	T	49	28.8	P3(4+4+4)	zn	88.00	80	101	103	33	31	36
		st	19.00	qd												
Group <i>d</i> :																
61. B V.....	p	MC	11.57	o2	G	24	37.8	P3(4+2)	o	57.21	70	55	92	48	31	21
Group <i>e</i> :																
62. B VI.....	q	MC	11.50	o3 tr	G	23	18.7	N2(2).....	o	25.42	191	114	...	57	43	...
63. B IV.....	q	MC	15.98	o2 un	G	29	21.7	N2(2).....	o	30.02	137	169	...	41	59	...
64. B III.....	r	MC	10.45	o2	G	22	26.4	N2(2).....	o	32.61	128	140	...	61	39	...
65. B I.....	p	MC	10.78	o2	G	22	24.1	N2(2).....	o	26.38	116	105	...	51	49	...
66. B II.....	k	MC	11.73	o2	G	10	29.8	N2(2).....	o	26.37	118	110	...	65	33	...
Group <i>f</i> :																
67. B IX.....	k	MC	7.00	...	N	16	24.0	N2(2).....	o	20.14	116	107	...	55	45	...
68. B X.....	q	MC	6.82	o3 tr	N	16	27.2	N2(2).....	w	16.27	210	111	...	47	53	...

The most casual examination of this table in connection with Table A shows the extraordinary parallelism between the type-forms of Barkal and those of groups *a—g* at Begarawiyah:

(1) Pyramid types:

The pyramid type being the basis, the OT-type is placed first and the only other type, the MC, second.

- (a) There are eight tombs with OT-pyramids and O-chambers and two with OT-pyramids and P3-chambers. These pyramids are like the OT-pyramids at Begarawiyah. Barkal XI has the later Nuri norm of 26.60 m. \pm 30 cm. sq. Bark. VII has the half norm like Beg. S VI, S V, N IV and N VII (first pyr.).
- (b) One MC-pyramid has P3 (4 + 2)-chambers like Beg. group *d* and seven have N2-chambers like Beg. groups *f* and *g*.

(2) Types of burial chambers:

- (a) The change from the O-chambers to the P3-chambers takes place within the OT group as at Beg.
- (b) The change from P3 to N2-chambers takes place within the MC group, again as at Beg.
- (c) As the ASPC = RBPB-pyramid does not appear among the royal pyramids at Barkal, the D2-chamber does not occur there.

(3) Types of foundation deposits:

- (a) Four pyramids of the OT-type at Barkal have no foundation deposits, while twelve OT-pyramids at Beg. have none.
- (b) Three pyramids of the OT + O3 (or O1 or O2)-type (Bark. XV, XXIV and XVIII) have plain lumps of lead as foundation deposits, a stage in the reintroduction of foundation deposits which does not occur at Beg.
- (c) One pyramid of the OT + O-type (Bark. XIX) has lead and tablet foundation deposits (type T) again with no example at Beg.
- (d) Two pyramids of the OT + P3-type have the lead and tablet deposits (T). (Bark. VII and VIII) like the similar types at Beg. (Beg. N VII and IX).
- (e) The gold ring deposits are introduced at Barkal in a pyramid (Bark. V) of MC + P3-type just as they were at Begarawiyah, and continued to be used for five pyramids of the MC + N2-type.
- (f) Foundation deposits were not found in the two MC-pyramids, Bark. IX and X, while at Beg. deposits went out of use at the end of the MC-period and beginning of the PC.

(4) Stairways and steps:

- (a) All the Barkal pyramids have F-stairways as do the same types at Beg.
- (b) The lower average height of step, 15—19 cm., is shown by the first eight pyramids at Barkal as by the first thirteen at Beg., confined at both places to the OT-pyramid.
- (c) The change from the lower to the higher step (more than 20 cm.) occurs at both places between two pyramids of the type OT + P3, and the higher step is continued thereafter (with one exception at each place).

(5) Proportional numbers:

The widening of the two outer rooms (proportional numbers less than 100) begins with Bark. XIV and XV in the OT + O-type before the introduction of the P3-type, just as at Beg. with N LIII.

(6) Percentages of room areas:

The small sized C room (less than 33 per cent.) appears in the only MC-pyramid of P3 (4 + 2)-type, at Barkal, but at Beg. it comes in with the high step of the OT + P3-pyramid, N IX.

According to this comparison then, the contemporary groups at the two places are as follows:

Beg. group <i>a</i> and <i>b</i> , 12 pyramids	= Bark. <i>a</i> and <i>b</i> , 8 pyramids. Difference in f. dep.
Beg. group <i>c</i> , 2 pyramids	= Bark. <i>c</i> , two pyramids. Pillars in all three rooms.
Beg. group <i>d</i> , 4 pyramids	= Bark. <i>d</i> , one pyramid.
Beg. group <i>e</i> , 1 pyramid	= wanting at Barkal.
Beg. group <i>f</i> , 4 pyramids	= Bark. <i>e</i> and <i>f</i> , 7 pyramids.

2. THE GROUPS OF PYRAMIDS AT BARKAL AND THEIR ORDER.

The parallelism shown above between the type-groups of Barkal and those of Begarawiyah relieves me of the necessity of going over the same ground again at Barkal in order to establish the priority of the OT + O-types as the earliest, and the interlacing of the subsequent groups by common type-forms. If now the Barkal type-groups *a* to *f* be examined, it will be found that they are also topographical groups and there remains only the consideration of their order and that of their members according to the principles of site suitability. See Plates XII and XIII.

(1) Group *a* at Barkal.

Group *a* at Barkal consists of the greatest of the Meroitic pyramids, Bark. XI and five smaller pyramids arranged about its "western"¹ face, Pl. XIII. Standing in the cultivation "north" of the temples of Gebel Barkal and looking towards the desert ("east") one sees a long slope rising towards the ridge on which stand Bark. I—VIII about 500 metres away. The old surface at the cultivation is about 252.50 metres above sea level at Alexandria (Egyptian Survey bench-mark) and the ridge has a level of 288 to 289 metres, giving a rise of 35.50 to 36.50 metres in 500. A little over half way up two breaks in the slope, or protrusions of the sandstone substratum are visible which I call knolls. They are about opposite each other, a large one on the "north" side of the slope and a small one on the "south." The large "northern" knoll is clearly, by its size, the soundness of the rock and the proximity to the temples, the most desirable site for pyramids. On the very middle of this "northern" knoll (level 273.50) stands the great pyramid Bark. XI (26.30 m. sq.), which is clearly the first pyramid built on the knoll. By all precedent, the five small pyramids should be of later construction, attracted to the proximity of Bark. XI by family relationship, and the three-room tombs should belong to kings while the two-room tombs belong to queens, as at Beg. S and Nuri. By position, the order of these five tombs

¹ In all references to El Kur'aw, Nuri and Barkal the names of the cardinal points are enclosed in quotation marks to show that they are local directions, not astronomical. The "north" lies in the course of the river which gives south-west = "north." See *Harvard African Studies*, II, p. 2.

should be: Bark. XII, XIII, XIV, XV, and XXIV. The site of Bark. XII is without any doubt the first choice after XI, and XV and XXIV are marked as later than the others by the L-foundation deposits. B XIV and XV are, however, connected by the low proportional numbers of the room dimensions and by the attached middle bench in C (type zn). Thus only B XIII is left between B XII and the others and the order, XI, XII, XIII, XIV, XV and XXIV is fully established.

(2) *Group b at Barkal.*

With the building of B XXIV the suitable sites on the "northern" knoll were exhausted. There was still room behind XI but this area was unsuitable and was, in fact, not taken until after the ridge was exhausted. But about 120 metres to the south, the sandstone emerges in another place from the gravel to form that smaller knoll which I have designated the "southern" knoll. The rock is good but the available area is small and actually contains only two tombs, B XVIII and B XIX. These are still of the OT + O type and are marked as later than group *a* not only by the position but by the foundation deposits. B XVIII has the L-deposit of B XXIV, while B XIX has the T-deposits of group *c*. B XVIII also stands fairly in the middle of the knoll and certainly on the primary site, while B XIX is on the slope towards the wady with its "south" side about 50 cm. lower than its "north" side. The order is therefore quite certain,—B XVIII, B XIX.

The burial chambers of B XVIII are of the O2-type but well cut and with a wide first room. In view of the Beg. examples (S X and N IV) of O2 kings' tombs about this time, I would identify B XVIII as a king's tomb. B XIX is a queen's tomb by the chapel reliefs, but the stairway and the underground chambers were never finished.

Behind these two there are three small tombs of later date, not royal tombs.

(3) *Group c at Barkal.*

When the two prominent knolls of the slope had been occupied, the alternative for the succeeding pyramids was the slope behind the pyramids of the knolls or the fine flat ridge of rock at the top of the slope. This ridge, which before might seem too distant from the temples, was now only 270 metres from the pyramids already built. Walking up the slope from B XVIII one comes out beside the projecting shoulder on which stands B VII, the most prominent site on the ridge and certainly the primary building site. B VII is again an OT-pyramid and, indeed, of the old half-norm, 13.30 m. sq., but with P3-chambers, in a variation, P3 (2 + 2 + 2), which was not found at Beg.

B VIII "south" of B VII has also P3-chambers but in another variation, P3 (4 + 4 + 4), not noted elsewhere. The pyramid of B VIII is of OT construction, but has the step-pyramid form in three stages (*cf.* the later step-pyramid, Beg. N I, Queen Amantére). The site is much poorer than that of N VII, being on the yoke which connects the ridge with another further "south." The highest ground under Bark. VIII is under the middle of the "west" front, only about 30 cm. lower than B VII, but the "north west" and "south west" corners are lower and the bottom of the "east" side is two metres lower than the middle of the front. In the chambers the rock was bad but this was not apparent from the surface nor from the strata in B VII.

The step form of B VIII is different from that of N I, for B VIII being a three-stage pyramid, about 9.80 m. sq. at the base, was built on a great filled platform of masonry which was itself about 19 m. sq. On this platform, set back towards the "eastern" side,

stood the actual pyramid, leaving a wide space on the "west" where the chapel appears to have stood. The platform was mounted by means of an inclined plane built against the "northern" part of the front. The stages of the pyramid, including the lowest, were sunk to a depth of about 30—40 cm. (or one course) in the gravel filling of the platform or in the stage below.

The triad stela from the niche of the chapel of B VII, found in the chapel, appears to indicate that the owner was a king, and a quadrad found on the site of the chapel of B VIII certainly marks the owner of that pyramid as a queen, *the first queen of Ethiopia to have a three-room pyramid.*

(4) *Group d at Barkal.*

About 30 metres "east north east" of B VII a second projection stands forth in the face of the ridge, the second most prominent site on the ridge. Here stands Bark. V which by reason of the structure of its pyramid and by its position is chronologically part of the group *d* (Bark. I—IV and VI). The pyramid, the burial chamber and the foundation deposits differ essentially from those of Bark. VII and VIII (group *c*). Now group *d*, to which Bark. V is chronologically attached, is characterized by the type-forms of the Beg. group *f*, while Bark. V itself presents forms analogous in many respects to those of the Beg. group *d*. It is clear therefore that Bark. V must be attached to the end of the Beg. group *d* (Beg. N XIII) and be practically contemporaneous with Beg. N XX which also intervenes between Beg. groups *d* and *f*. On the other hand, the pyramids Bark. VII and VIII present the forms of the Beg. group *c* (Beg. N VII and IX) and it must be concluded that at least four generations (Beg. N VIII, XI, XII, XIII) intervened between Bark. VII and VIII and Bark. V.

The force of the argument based on relative suitability of sites and line of growth is emphasized by the fact that on the resumption of pyramid-building at Barkal after an interval of about 80 years the site selected was the next in the line of suitability after Barkal VII and VIII.

The owner of B V was a male but he wears no crown or uraeus, and I have reached the conclusion that he never came to the throne.

(5) *Group e at Barkal.*

The rest of the pyramids of the ridge are five in number, all obviously similar to B V in masonry and details but all having the N2 (2)-type of burial chambers. All are necessarily behind the front line of B V because of the trend of the ridge. A doubt may be held as to whether B VI or B IV was the next after B V,—B VI being to the "south" and B IV to the "north." Both of these are tombs of queens who wear the royal insignia. B VI is that of Queen Na(pata)za:mak, the only tomb of the ridge which has yielded a hieroglyphic inscription. I have placed B VI first provisionally. After that, the order by position is quite clear,—B III, I and II. The insignia and rank of the owners are discussed below (para. 8).

These five pyramids are by their type-forms of the same period as Beg. N XXI, XIV, II and VI. But it is to be noted that all these Beg. pyramids seem to have had a false window just under the smoothed place on the summit. But Bark. I—IV at any rate did not have a false window. The Barkal pyramids, on the other hand, had a faience sun's disc with two uraei, inlaid in several circular depressions on the smoothed summit, while the Beg. pyramids had none.

(6) *Group f at Barkal.*

With the construction of Bark. II every clear forward site on the ridge was occupied. The alternative lay between building on the bad rock and behind the front line or descending once more to the good rock behind Bark. XI, 270 metres nearer the cultivation. The choice which was manifestly made was to build behind Bark. XI. Here stand two well-constructed but smaller pyramids, Bark. IX, clearing easily the "northern" face of Bark. XI, and Bark. X, clearing the "southern" face. Both are of the same types as Bark. I—IV, MC + N2(2), with faience discs but, as far as we could discover, without foundation deposits. Both are small, but B X is the smaller. A triad stela found in the chapel proves that B X was the tomb of a queen and I presume that B IX was the grave of a king.

Bark. X was the last royal pyramid built at Barkal, but to the front of Barkal IX and X, between them and the back of Barkal XI, we discovered a row of four small tombs with traces of stone pyramids which appeared to bear the same relation to the royal pyramids as the small graves of W Cem. bear to the royal pyramids of the southern capital. These were, however, later in date than Barkal IX and perhaps later than Barkal X.

Further "south," behind Bark. XVIII and XIX, three other very small tombs were excavated and two of these were of the RBPB + D1-type, but again manifestly not royal tombs.

Much lower down the slope is another group of three very small, destroyed pyramids and a number of tiny stairway tombs. All these had been so completely plundered and all so destroyed above ground that we shall probably never be able to say anything except that they were not royal pyramids.

(7) *Summary.*

The evidence is quite clear as to the order of the Barkal pyramids. They present the same types (with a few minor deviations) as do the cemeteries of Begarawiyah down to Beg. group *f*, and the relative positions show conclusively that these types occur in the very same order at both Napata and Meroe. I consider, therefore, that the order of the pyramids at Barkal, as well as that of the pyramids at Begarawiyah is, with the exception of a few details already noted, placed beyond any reasonable doubt.

(8) *The Insignia and Rank of the Royal Persons buried in Barkal I—VI and X.*

In the Ethiopian Period of Napata, at El-Kur'uw and Nuri, the tombs of the queens were separated from those of the kings, although in the same cemetery, and each of their pyramids covered only about one quarter of the area of the average king's pyramid. At Begarawiyah, where *sati*-burial was practised in the case of some part of the *harim*, the minor members of the royal family, including some queens, were buried in small pyramids in a separate cemetery (W Cem.) from the time of Ergamenes onwards. But in the N Cem. five queens were buried with the honours of kings at intervals during the reigns of 30 kings. At Barkal, in the earlier Meroitic period, five queens were buried beside the five kings of their family but in much smaller tombs, except the last queen, the one buried in Barkal VIII (perhaps the mother or the mother-in-law of Ergamenes). The second group of royal tombs at Barkal, Bark. I—VI, IX and X, appears to follow the example set by Barkal VII and VIII at the end of the earlier group and not that of Meroe (Begarawiyah). The tombs represent four females and four males all buried in pyramids of practically equal scale, declining towards the end of the group. These eight persons differ considerably in the

insignia with which they are represented and doubt arises therefore as to their respective ranks in the kingdom.

The only inscriptions recorded were those in Bark. VI—a woman's tomb. Her cartouche, inscribed with Meroitic hieroglyphics, gives the title *nb* (Egyptian sign) = "Lord" and the name *N...s:mk* (which Griffith would restore *Napataza-mak*). Before the face of the young man offering incense to the queen on the side walls, his name and his four titles are written in Meroitic cursive. The first title—the most important—is *pktrr-l; wize-lē*, which Griffith suggests to mean something like "servant of the crown-prince" but which I would translate "heir of the crown-prince" or "son of the crown-prince." The woman herself wears royal insignia and is certainly a queen. The fact that the crown-prince, presumably her son, is represented by his "son" or "heir" (or "servant") in the offering scenes indicates that the crown-prince himself was dead, and suggests something peculiar in the law of succession. I imagine that the succession lay in the sister-wife of the dead crown-prince, that the grandson was chosen for the offering scene because by tradition the scene required a male.

Placing the pyramids in chronological order, the facts in regard to their sizes and the sex and insignia of their owners are given in the following table:

	Sex	Insignia	Size pyr.	Area chambers
(1) Bark. V.	Male	Fillet	11.57 m. sq.	57.21 m. sq.
(2) " VI.	Female	Royal	11.50 " "	25.42 " "
(3) " IV.	Female	Royal	15.98 " "	30.02 " "
(4) " III.	Female	Fillet	10.45 " "	32.61 " "
(5) " I.	Male(?)	Fillet(?)	10.78 " "	26.38 " "
(6) " II.	Male	Royal	11.73 " "	26.37 " "
(7) " IX.	Male	.....	7.00 " "	20.14 " "
(8) " X.	Female	.....	6.82 " "	16.27 " "

The most natural conclusion is that the persons with royal insignia, the two females and the one male buried in Bark. VI, IV and II, were reigning lords of Napata, while those with the fillet only were consorts of the blood royal but not actually seated on the throne. In that case the eight royal tombs represent four or possibly five generations,—the doubt arising from our ignorance of the insignia of Bark. IX and X. The contemporary royal tombs of the N Cem. at Begarawiyah are five in number (Beg. N XX, XXI, XIV, II and VI) representing also four or five generations inasmuch as Queen Amanshakhete (N VI) may have been the queen of the king of N II. Therefore the reign of Queen Amanshakhete at Meroe and that of the queen of Bark. X must have been in part contemporary.

In the next section of this article, No. III, the period of this later group of Barkal pyramids is designated the Second Meroitic Kingdom of Napata and the conclusion is reached that Ethiopia was divided during that period between the Kingdom of Meroe and the Second Meroitic Kingdom of Napata. The facts are quite clear and, in order to show the general conditions indicated by the facts, I would suggest the following reconstruction of the course of events, without making any claim to more than approximate human probabilities:

(1) The king of Beg. N XIII, the last of the great kings of Meroe, had two wives of the blood royal, one of the Meroe branch and the other of the Napata branch (whose last ruling members had been buried in Bark. VII and VIII, about 125 years before). When the king died, the son of the Meroe queen came to the throne (Beg. N XX) at Meroe, while

the queen from Napata, who may have lived at the northern capital, set herself up as ruler of Napata with her son as crown-prince (*pkrttr*). The evidence of the Akinizaz stela is that the crown-prince did not assume the title of "king" during the life-time of his mother when she was of the blood-royal.

(2) The crown-prince of the queen of Napata died without becoming king and was buried by his mother in Bark. V, not far from their ancestor in Bark. VII.

(3) Later the queen, Na[pata]zamak, died and was buried in Bark. VI, whereupon her daughter, the queen of Barkal IV, probably the sister-wife of the dead crown-prince, succeeded. She was in turn followed by the king of Barkal II.

(4) The lady of Barkal III, without royal insignia, was buried during the reign of the king of Barkal II and was probably his chief wife, the daughter of the queen of Barkal IV.

(5) The prince of Barkal I, without royal insignia (?), was also buried in the reign of Barkal II, and would naturally have been his chief son.

(6) The king of Bark. II, with the royal insignia, succeeded the queen of Bark. IV. He was the husband of Bark. III and the father of Barkal I. A large family of eight women and six men are represented on the chapel walls of N II. The king himself may have been the son of the queen of Bark. IV, the grandson of Queen Na[pata]zamak and therefore possibly the Yetartey represented on the walls of Bark. VI.

(7) The succession passed to the king of Barkal IX who, I imagine, was outlived and followed by his sister-queen, her of Barkal X.

(8) The queen of Barkal X was the last ruler of Napata buried at Barkal. With her ended the Second Meroitic Kingdom of Napata. As far as the present evidence goes, Napata never again disputed the sovereignty of Meroe for the 350 years which remained of the kingdom of Meroe.

It is of course improbable that the course of events was *exactly* as here outlined. For example, the king of N XX may not have been a son of the king of N XIII, but the facts clearly indicate that something similar to the above outline did happen to divide the two kingdoms.

III. THE CHRONOLOGICAL RELATIONS BETWEEN THE PYRAMIDS OF BARKAL AND BEGARAWIYAH.

The establishment of the order of the pyramids at Begarawiyah was easy because the buildings represent a sequence of generations, and with that basis the order at Barkal became a simple matter of comparison. But the union of the two series into one meets at the start with a difficulty arising out of our ignorance of the relations between the two capitals; for either (a) Ethiopia may have been divided into two separate kingdoms, more or less independent of each other, or (b) the kingship may have shifted at times from one capital to the other.

It is to be noted in the first place that the royal pyramids at Napata are only 18 in number, including not more than 10 reigns, and cease with B X about the time of Amanshakhetê of Beg. N VI. Amanshakhetê represents the sixteenth reign at Meroe, and her pyramid was the twenty-third built in the two royal cemeteries of Begarawiyah. After B X all evidence of kings or queens at Napata is wanting. Thus the question of the relations of the pyramids of Meroe and Napata is confined to the period from Nastasen (about 300 B.C.) to Netekaman (about 20 B.C.).

The series of pyramids at Begarawiyah for this period appears from the tomb-types to be practically uninterrupted. At Barkal, however, there is a manifest gap between Barkal VII—VIII and Bark. V, in which fall the great pyramids Beg. N VII, IX, VIII and XI—XIII. The kings at Napata previous to this gap are those of the pyramids Bark. XI, XIV; XV, XVIII and VII and these I call the *First Meroitic Dynasty of Napata*. After the gap come the rulers of Bark. VI, IV, II, IX and X, whom I designate the *Second Meroitic Dynasty of Napata*. Thus two separate problems are presented: (1) that of the relations with Meroe of the First Meroitic Dynasty of Napata, and (2) that of the Second.

To take the simpler second question first; the Second Meroitic Dynasty of Napata was contemporaneous with groups Beg. *e—g* (Pyr. N XX, XXXI, XIV, II and VI) and the two kingdoms were in this period independent. To the preceding period, when there were no pyramids built at Barkal, belong the six great pyramids (Beg. N VII—XIII), groups Beg. *c—d*, which by their size and costliness indicate the most prosperous era of the Meroitic kingdom. As the series begins with Ergamenes, whom we know to have ruled united Ethiopia, the kings of the succeeding larger tombs could hardly have enjoyed less power and resources. It is safe therefore to conclude that during the time of these six the kings of Meroe ruled the whole country and there were no kings at Napata. This period of the domination of Meroe is followed by a period of smaller pyramids at both Barkal and Begarawiyah—pyramids which show a duplicate transition from the P3-type and which belong to the same place in the series of type-forms. There are slight differences in details which prove, however, that the traditions established by the great period at Meroe developed along independent lines at the two places, as is shown by the following points:

- | Barkal. | Begarawiyah. |
|--|---|
| (a) The first pyramid of groups <i>d—f</i> has chamber of type P3 (4 + 2). | (a) The first pyramid of groups <i>e—g</i> has chamber of type P3 (4 + 2). |
| (b) The remaining pyramids all have type N2 (2). | (b) The remaining pyramids all have N2-chambers but in the variations N2 (2), N2 (6), N2 (4). |
| (c) Have faience discs set in smoothed summit of pyramid, but no false window. | (c) Have false window under smoothed summit but no faience discs. |

The small size of the pyramids at both places and the transition from the three-room to the two-room type point clearly to less resources at both capitals than those at the disposal of the great kings of Meroe immediately preceding. The only reasonable explanation which I see for these facts is that the Second Meroitic Dynasty was practically independent of Meroe and was contemporaneous with the groups *e—g* at Meroe. The great pyramid, N VI, the tomb of Amanshakhete and the great building operations of Netekaman appear to mark the reunion of the resources of Ethiopia under the control of the king of Meroe, that is, the end of the Second Dynasty at Napata; and, as a fact, the inscriptions of the temples at Barkal and Amara prove that Netekaman did rule over Napatan territory. At the same time the notable decrease in the sizes of Bark. IX and X, the last pyramids at Barkal, show a marked decline in the resources of Napata in their time.

Turning now to the more difficult problem, that of the First Meroitic Dynasty of Napata, the first obvious point is that the whole dynasty preceded Ergamenes, Beg. N VII, except possibly the queen buried in Bark. VIII. The last king's tomb of this dynasty, Bark. VII,

has an OT pyramid of the size of the half-norm, T-foundation deposits and P3-chambers, and should therefore be close in time to the pyramids Beg. N VII and IX. The kings of N VII and N IX (Ergamenes and Azagman) ruled over Napata, and Bark. VII is too large to have been the tomb of a vassal of Meroe. The pyramid cannot reasonably be placed after N IX as the relations between N IX and VIII are too close to admit a gap. It is only possible, therefore, to place Bark. VII immediately before Beg. N VII and to conclude that the P3-chambers were first introduced at Napata in the P3 (2+2+2)-form and at Meroe in the succeeding reign in the P3 (2+2)-form. It is possible that Ergamenes was the son-in-law of the queen of B VIII.

Now, taking Bark. VII as immediately previous to Ergamenes, the eight pyramids (Bark. XI—XV, XXIV, XVIII and XIX) which precede it at Barkal are all closely related except in position. The changes, however, from the "northern" knoll to the "southern" knoll and from there to the ridge were necessitated by the exhaustion of the sites selected for the tombs of the first two groups and do not indicate any lapse of time. On the other hand, the stages in the reintroduction of the foundation deposits are all fully represented at Barkal,—four pyramids with no deposits, three with lead deposits and three (including VII and VIII) with lead + tablet deposits. This fact, with the sequence of type-forms, leads me to conclude that the eight tombs form an unbroken succession and, taking only the kings' tombs, N XI, XIV, XV, XVIII and VII, represent five generations.

Groups *a—b* at Begarawiyah, which are likewise immediately or almost immediately previous to Beg. N VII, consist of a coherent group of which also five are kings' tombs, so that we have five Meroitic generations at Barkal and five at Meroe previous to Ergamenes. By type-forms, the Barkal dynasty might follow, but could not as a whole precede the corresponding groups at Beg. Thus the alternatives are:

- (a) The Beg. groups *a—b* are followed by the Bark. groups *a—c*, and the capital was first at Meroe, then at Napata and finally back at Meroe.
- (b) The two groups are contemporaneous, representing two more or less independent monarchies.
- (c) The two groups are generally contemporaneous, but not strictly so in detail.

It remains to determine which of these three possibilities is *favoured* by the evidence, for the chambers of the Barkal group had been so completely cleared out that definite proof is hardly to be expected from the examination of the funerary furniture (the material for which, as far as it concerns Begarawiyah, has not yet been classified).

The inscriptions at Barkal give us the name of only one of the kings of the *a—h* groups at Beg., namely, Yesruwaman, Beg. S V, usurped on the two lions from B 1100 which were made for Soleb by Amenophis III, and removed to Barkal by Piankhy (?). That is, Yesruwaman had sufficient power at some time during his career to place his name on statues in a temple at Napata. The significance of this act is, however, capable of at least two different interpretations:

- (a) Yesruwaman may have ruled Napata as part of his kingdom.
- (b) He may only have held the ruler of Napata tributary for a few years, or a few months.

Thus this fact hardly makes it obligatory to break the line of rulers at Napata and helps little to a clear conclusion, but must be remembered.

The question may also be approached from another side, that of the average length of reigns. If we take (1) the five kings from Piankhy to Tanutaman inclusive, (2) the eleven reigns from Ergamenes to the Roman invasion of 23 B.C. and (3) the 20—30 reigns from this invasion to the Abyssinian conquest of 354 A.D., the averages work out as follows:

- (1) 17.8 years, 5 kings for 89 years, 744—655 B.C.
- (2) 18.3 years, 11 reigns for 202 years, 225—23 B.C.
- (3) 16.4 years, 23 reigns for 377 years, 23 B.C.—354 A.D.
- (4) 17.1 years, for above 39 reigns for 668 years.

Now if we take the hypothesis that the Barkal kings ruled independently over all Ethiopia in succession to the Beg. groups *a—b* as suggested above, (a), we would have 30 reigns between Tanutaman and Ergamenes in 430 years, 655—225 B.C.

- (a) Average reign 14.3 years, 30 reigns, 430 years,—655—225 B.C.

This result is entirely out of harmony with the averages (1)—(4) above, and when it is remembered that Harsiotef alone ruled 34 or 35 years while Anlaman, Aspalta, Astabarqaman, Malewiyaman and several others probably equalled or exceeded 20 years, the average for the remaining kings is reduced to about 11 years—incredibly low.

If we take the other extreme, assuming that the reigns were as a group contemporaneous, we have 25 reigns for the same period.

- (b) Average reign 17.2 years, 25 reigns in 430 years.

The other alternatives are:

- (c) Average reign 16.5 years, 26 reigns in 430 years.
- (d) Average reign 15.9 years, 27 reigns in 430 years.

It is clear that the only hypothesis which gives an average at all comparable with the average of better known periods is that which would make the First Dynasty at Napata practically contemporary with Beg. groups *a—b*. It might be admitted that Yesruwaman, for example, exercised sovereignty over Napata for a few years or even that the king of Barkal XI ruled over Meroe for a time at the beginning of his reign, but the theory of a succession of ten reigns at this time is, I think, more than improbable.

Remembering always the poverty of the material and the tentative character of the conclusions, I would suggest the following reconstruction for the contemporaneous reigns at Meroe and Napata during the First Meroitic Dynasty of Napata (the numbering of the reigns is continued from the Napatan Kingdom of Ethiopia):

Meroe:

- | | |
|------------------------------------|-----------------------------------|
| (27) Beg. S VI.....(20) 300—280. | (a) Bark. XI.....(25) 308—283. |
| (28) Beg. S V.....(15) 280—265. | Inscription at Napata. |
| | (b) Bark. XIV.....(10) 275—265. |
| (29) Beg. S X.....(10) 265—255. | (c) Bark. XV.....(10) 265—255. |
| (30) Beg. N IV.....(13) 255—242. | (d) Bark. XVIII.....(10) 255—245. |
| (31) Beg. N LIII.....(17) 242—225. | (e) Bark. VII.....(20) 245—225. |

The final conclusion which I reach in regard to the chronological relations of the pyramids of Meroe and Napata is then

(1) That the two groups at Napata (Barkal), representing the First and the Second Meroitic Dynasties of Napata, were separated in time by about six generations and were contemporaneous with the corresponding groups at Meroe (Begarawiyah);

(2) That immediately, or soon after the death of Nastasen, Ethiopia split into two kingdoms, that of Meroe and that of Napata, to be reunited under Ergamenes, disjoined again on the death of the last of the great kings of Meroe (N XIII) and reunited under Amanshaketê or Netekaman as a result of the damage inflicted on Northern Ethiopia by Petronius in 23 B.C.

IV. HISTORICAL QUESTIONS CONCERNING THE CHRONOLOGY OF MEROE.

In attempting to reconstruct the chronology of the Meroitic Kingdom certain questions arose which had been long under discussion and required to be answered before the list of rulers could be fixed. In answer to these questions three statements have been assumed in the preceding sections, as follows:

(1) That there was only one royal pair, Netekaman and Amantêre, with three successive heirs.

(2) That Netekaman restored the temple of Barkal after the sack of the city by the Romans.

(3) That the Candace of the Roman Invasion of 23 B.C. was the queen buried in Pyr. Bark. X, the last queen of the Second Meroitic Kingdom of Napata.

I may add that I have carefully examined Griffith's conclusion that the word "candace" was a title, a corruption of the word *ktke* meaning "queen," and I adopt it as fully proved. It may be noted that the exact use of the title is still uncertain. But if the Roman account of a long line of "candaces" be correct, the meaning approaches that of "king's wife" used during the Napatan Kingdom of Ethiopia. For there was manifestly no long line of ruling queens at Meroe, but only five in about 500 years, and some of these at least were subordinate to king-husbands for a longer or shorter period.

1. *Netekaman and Amantêre.*

The names of King Netekaman and Queen Amantêre occur together on various temples or monuments at Wad Ben Naga, Naga, Meroe, Napata and Amara. The names are written in three different scripts,—Egyptian hieroglyphics, Meroitic hieroglyphics and even Meroitic cursive (on the Moscow stela),—and are associated at different places with the names of three *prtr-leb* or "crown-princes," Arikharêr, Arikhatani and Shêrakarêr. At the same time the scenes in which this pair appear exhibit three distinct styles. Because of these variations and the presence of the three different princes it has been considered probable that there were at least two different royal pairs with the same names.

Now, our examination of the cemeteries of Meroe proves that there was only one pair of this name whose tombs can be identified,—King Netekaman of Beg. N XXII and Queen Amantêre of N I. There is likewise only one of the crown-princes, Arik-kharêr, whose tomb is known from inscriptions. The great outstanding fact is that the chapels of the two tombs N V and N I, the graves of the prince and the queen, bear on their walls scenes from the Book of the Dead and Egyptian inscriptions *which could only have been designed and executed by an Egyptian scribe*. The tombs after Ergamenes and Azagraman show a rapid loss of knowledge of the Egyptian language and of Egyptian traditions. Beg. N XI appears to be the last previous to N V which made any attempt to use Egyptian inscriptions, and in that the hieroglyphic texts are for the most part quite unintelligible. Just previous in

date to N V is the tomb of Amanshakhê (N VI) and in this for the first time the inscriptions are in the Meroitic language, written in Meroitic hieroglyphics. It is possible that similar inscriptions were painted on some of the preceding tombs, perhaps as early as N XII, but in N VI their presence is certain. If now we take the successive pyramids N II, N VI, N V, N I, N XXII, and compare the styles of their scenes and inscriptions with those of the temple monuments associated with the names of the royal pair, it becomes obvious that the same three styles of work occur in both series of monuments:

Style 1. Meroitic designs and Meroitic hieroglyphic inscriptions, sometimes with de-based Egyptian titles:

Examples:

<i>Temples.</i>	<i>Pyramids.</i>
Lion Temple at Naga.	Beg. N II.
Some stones at Meroe. (<i>Mer.</i> 15 and 20.)	Beg. N VI (Amanshakhê).
A slab now in Worcester, Mass. (<i>J.E.A.</i> IV, p. 22.)	

Style 2. Egyptian designs and inscriptions such as could have been produced only by an *Egyptian scribe*:

Examples:

<i>Temples.</i>	<i>Pyramids.</i>
Amûn Temple at Napata.	Beg. N V (Arikkharêr).
Temple B 1100 at Napata.	Beg. N I (Amantêre).
Altar from Wad Ben Naga.	
Stone at Meroe.— <i>Mer.</i> 19.	

Style 3. Egyptian designs but with Meroitic hieroglyphics in the inscriptions except in the throne-name, in the Egyptian titles and occasionally in the name of Netekaman.

Examples:

<i>Temples.</i>	<i>Pyramids.</i>
Amûn Temple at Naga.	Beg. N XXII (Netekaman).
Stone at Meroe.— <i>Mer.</i> 18.	Beg. N X and the following
Amara Temple.	pyramids.
Stone from Barkal (B 501).	

The order of these three styles is fixed by the order of the pyramids as shown in the preceding sections. It is to be noted that Arikkharêr appears in the temples in scenes of style 1, while his own tomb is decorated with scenes of style 2. The fact gives point to the statement made above that the scenes in the tomb of Arikkharêr could only have been made by an Egyptian and shows that this prince lived during the decoration of the Amûn Temple at Naga and died before any great progress was made with the decoration of the temples of style 2. The Egyptian scribe (or Egyptian trained scribe) who produced style 2 arrived, however, in time to execute the scenes in the chapel of the prince, and he was probably called on at the same time to prepare the chapel of the prince's mother, Queen Amantêre (N I).

From the facts set forth concerning the three styles and their chronological order I reconstruct the course of events as follows:

(1) The Meroitic cursive was invented before 200 B.C. When it had come into general use, the knowledge of the Egyptian language and scripts was rapidly lost, so that at the time N XI was built the attempt to decorate the chapel in Egyptian hieroglyphics was a failure. Soon after this time the Meroitic hieroglyphic script was invented on the basis partly of the cursive and partly of the Egyptian, for the purpose of decorative official or monumental inscriptions. The traditional offering scenes of the older chapels gradually received variations which gave them a distinctive Meroitic tinge, due perhaps to a tendency towards realism. The technical excellence of the drawing and carving varied from artist to artist of different generations. This process of gradual degeneration runs through Pyramids N VIII, XI, XII (Pl. V), XIII, XX, XXI, XIV, II and reaches its lowest point in N VI (Aman-shakhetê). At this stage Netekaman and Amantêre came to the throne.

(2) The first operations undertaken by Netekaman and Amantêre were on the Amûn Temple at Meroe and the Lion Temple at Naga. Both these works may have consisted solely in the decoration of older buildings. In any case they were carried out in style 1, representing the lowest point in the decline from the Egyptian style of Ergamenes. In the scenes of this style Arikharêr, probably their eldest son, but still young (as on the Worcester slab), was pictured as crown-prince (*pkrr*). Like Amanshakhetê, none of the royal triad is given a throne name and the Meroitic titles of the king and queen are placed inside the cartouche on the face of the pylon. The exterior titles are in debased Egyptian.

(3) The next piece of work of this royal pair was the restoration of the more distant temples at Napata and especially the Great Temple of Amûn, Ipt-Isuwt, left in ruins by Petronius, 23 B.C. (see following section). The ambitious attempt was made to restore the damaged walls of the Great Temple and to decorate the inner rooms in Egyptian style with Egyptian inscriptions not unworthy of the undamaged parts which belonged to the temple of Piankhy. This work was beyond the powers of the Meroitic scribes of that day, and it was for this reason, I take it, that at least one Egyptian scribe was imported, perhaps with the assistance of the Amûn priesthood of that other Ipt-Isuwt in Thebes.

(4) Probably before any great progress had been made with the work at Napata, Arikharêr died and the Egyptian scribe was employed to design the reliefs on his tomb and to oversee at any rate the carving. The same person or persons also decorated the chapel of N I, the tomb of Amantêre. As the tombs at Begarawiyah were usually prepared before the death of the owner, Beg. N I may well have been done at this time, long before the death of Amantêre.

It is to be noted that Arikharêr (spelled here *irknhr*) in the inscriptions in his tomb is given a throne name, Ankh-ke-rêç, according to the Egyptian custom, but still has his Meroitic title of *pkrr* in Egyptian hieroglyphics in a cartouche according to the custom of style 1. Amantêre, on the other hand, has only her Meroitic title of *ktke* written in Egyptian hieroglyphics in a cartouche.

The introduction of the *n* in the name of Arik-kharêr and in the title of Amantêre is, of course, a mistake of the Egyptian scribe caused by the nasal quality of the Meroitic *k*.

(5) After the death of Arikharêr, Arikkhatani (probably a second son of the royal pair) became crown-prince, with the throne name of his predecessor, Ankh-ke-rêç.

The work of the Egyptian scribe was continued on the Temple of Amūn (B 500). Here only the name of Netekaman has been preserved with a five-name Egyptian titulary, but the spelling of the name Netekaman as *Nwdkʾmn* shows that the Egyptian was still ignorant of the meaning of the name (especially of the presence of the name of Amūn).

Style 2 appears also in Temple B 1100 and here Arikhatani was associated as crown-prince with the royal pair and all have their throne names,—Kheper-kerē, Merkerē and Ankhkerē. These are the throne names of the Ethiopian kings Malewiyaman (Nuri XI), Aspalta (Nuri VIII) and Anlaman (Nuri VI). The personal names are correctly written in Egyptian hieroglyphics.

The same style appears in the altar from Wad Ben Naga and in some stones at Meroe, but without the name of the crown-prince. The altar introduces the personal names of the king and queen in Meroitic hieroglyphics as well as in Egyptian.

(6) The Lion Temple at Naga was next decorated, perhaps constructed as well. This was during the life-time of Arikhatani and in style 3. *The knowledge of Egyptian shown in style 2* is absent, and the inscriptions are in Meroitic hieroglyphics. The designs show clearly the influence of the Egyptian craftsman, but were probably executed by Meroitic apprentices taught by the Egyptian according to Egyptian traditions.

(7) Arikhatani died and was succeeded by Shêrakarê as crown-prince, again with the throne name, Ankhkerē. In his time the temple at Amara was built and decorated in the style of the Lion Temple and, indeed, with nearly the same designs. My personal impression is that the workmen were now, at any rate, local craftsmen, Ethiopian sculptors who, stimulated by the presence of the Egyptian, had formed a new body of Egypto-Meroitic traditions based on the reintroduced Egyptian forms and designs, but lacking more than a rudimentary knowledge of Egyptian hieroglyphics.

Arik-khatani was probably buried in Beg. N LVI, the pyramid of which was never constructed, as this tomb falls between N I (Amantêre) and N XXII (Netekaman).

An inscribed stone with the names of Shêrakarê was found by us in the Napata Temple, in room B 501, and points to a continuation of the decoration of that temple by Shêrakarê in the style of the new Ethiopian school, but this work may have been done after Shêrakarê's accession to the throne.

(8) Both Netekaman and Amantêre died after the completion of the Amara Temple, but the evidence is not decisive as to the order of their deaths. The tomb of Netekaman was decorated in the style 3, that of the new Ethiopian school, but that of Amantêre had been prepared long before in style 2, as explained above.

(9) Shêrakarê probably succeeded his father and, I think, began the preparation of N X, the next tomb after N XXII. But neither the pyramid nor the burial chambers were finished: even the reliefs in the chapel are incomplete, and Shêrakarê, if this is his tomb, was probably as short-lived as his two elder brothers.

(10) The reliefs in the chapel of N X are in the third style but the inscriptions are wanting. This later Egypto-Meroitic style was well maintained by the sculptors of the following reigns. During the period of N XVII, N XVIII and N XXXIV another revival of the knowledge of Egyptian is apparent in the inscriptions, but at present I have not been able to work out the details of this revival (style 4). However, from that point on the style of the chapel reliefs (style 5) are remarkably uniform in excellence and in their general resemblance to the late Egypto-Meroitic style.

Once before, in the time of Ergamenes and Azagraman, an Egyptian scribe had been brought to Meroe, and it is obvious that Egypt, from which the Ethiopians had originally drawn their culture, offered in all periods a source from which craftsmen might be obtained to renew the Egyptian traditions. It is also clear that the scribes of Ethiopia never again recovered their knowledge of Egyptian, which was finally marked as a dead language by the invention of the Meroitic hieroglyphics.

2. *The Restoration of the Temple of Amūn at Napata (B 500) and its relation to the Roman Invasion of 23 B.C.*

The Temple of Amūn of Napata at Barkal, called by me B 500, as drawn by Cailliaud and Lepsius and represented in my Plan IV (*J.E.A.*, iv, Pl. XLVII), is, in its essential lines, the temple built by Piankhy. The excavations of 1919 and 1920 have now exposed the whole of the temple with a wide space on all sides of it. The walls, the columns and the pylons of Piankhy in the first two courts are still standing to some height and the reliefs and inscriptions are legible as far as preserved. The temple was finished by Piankhy as far as Pylon II before his campaign into Egypt, while the outer court (B 501) and Pylon I were finished after that campaign (scene of submission of Pefnefdebast). After the time of Piankhy, Tanutaman added a kiosk in the axis of the second court (B 502); some late Ethiopian king built a similar kiosk in the axis of the first court (B 501); and some Meroitic king added a third in the axis of the approach just outside Pylon I.

The temple of Piankhy has, however, undergone two restorations:

- (1) A considerable restoration of the sanctuary (B 506 and "eastwards") involving a redecoration of the walls and possibly a reconstruction. These are the decorations which show the name of Nudkaman (see below).
- (2) A restoration of *inner faces* of the walls of B 503 and a redecoration of the columns. These bear the name of *nswty-bity Kheperkerē*.
- (3) The casing of the "south" and the "north" inner faces of the first court. The upper part of this casing which may have been more or less decorated had been removed for its stone, but one block inscribed with the name of Shérakarēr = Ankhkerē may have come from this casing wall.

These three pieces of work seem to belong to the same period. After them there was only one further reconstruction worthy of mention:

- (4) The walls were picked to take plaster and over-laid with a thick layer of grey plaster or cement. The large figures on the pylons alone were worked out on the surface of the plaster.

The extent and character of the damage implied by the large restorations (1) to (3) above appear to be just about what would be expected from the destruction of Napata by Petronius in 23 B.C. as described by Strabo (*Geog.*, xvii). The complete destruction of the Amūn Temple would have been a futile and arduous piece of work, but there would have been some temptation to damage seriously the sanctuary and inner rooms. It seems to me therefore reasonable to conclude that the only considerable restoration of the Amūn Temple was carried out after the Roman invasion of B.C. 23. Thus it becomes of great importance for the chronology to determine the name of the king who caused these restorations to be made,—in other words to identify the king named in the inscriptions on the restored parts of the temple.

The restorations have suffered greatly in the decay of the temple and, indeed, considerably since Lepsius's visit. On the "south" door-jamb between B 506 and B 514 I read the inscription as follows:

- (1) Two vertical lines of hieroglyphics in relief above a large cartouche. The right "W." vertical line reads:*tf-f nswt-bity nb t3wy nb*; the left vertical line is missing: below the two is the large cartouche,

Rc (?) hpr-(k3).

- (2) On the same door-jamb also on the "S." facing B 506 and adjoining no. (1) above was the inscription

...*s3-Rc Nd-K3-mn...* (L, D., v, 14, g.)

- (3) On the opposite door-jamb facing B 506 was another cartouche in which Lepsius read two signs, -*mn*. (L, D., Erg. v, 269).

- (4) The cartouche seen by Lepsius on the same door-jamb on the side towards B 415 seemed to him to be the same as no. (2) above (L, D., Erg. v, 269).

In 1916 I read doubtfully the cartouche "King of Upper and Lower Egypt, Kheperkerē" on the column of B 503. In January 1919, while clearing the pylon between B 502 and B 503, two fragments of columns half worn away were uncovered lying on top of the "south" half of the pylon (Pylon III). On turning these over on Jan. 13 (*Diary*, p. 653), I read the following three vertical lines of inscriptions in large hieroglyphics in relief of about the same workmanship as nos. (1) and (4) above:

- (5) i. 
 ...*m ist nt tf-f mn nb t3wy nswt-bity Rc hpr-k3...*
- ii. 
 ...*Hr nbty smn hpw nfrw.....*
- iii. 
 ...*t hn hr m3t itl nb t3wy...*

Taking these five inscriptions as belonging to one king, we get the titulary

- (a) The Horus-name not preserved.
 (b) The Lord of the Two Diadems,—.....*t-heny-her-ma'at*.
 (c) Horus Nubty,—*Semen-hepew-neferew.....*
 (d) King of Upper and Lower Egypt,—*Kheperkerē*.
 (e) Son of Rc,—*Nud-ka-men*.

Kheperkerē was the throne name of Sesostri I and occurs in inscriptions on monuments of that king in Ethiopia (see especially the red granite altar from Argo now in the Mudiriyah at Merawe). It is also the name of Nekhtnebef (Nectanebo II, 358 B.C.), but the titulary of that king differs in its other elements from the above titulary. Four Ethiopian kings are known who have the throne name Kheperkerē (the dates are taken from my lists):

- i. Malewiyaman (Nuri Pyr. XI), king at Napata, about 453—423 B.C.
- ii. Netekaman (Beg. N XXII), king at Meroe, about 15 B.C.—15 A.D.
- iii. Artanyesz(?)eme (Beg. N XXXIV), king at Meroe, about 105—130 A.D.
- iv. Tam(?)eqêraze-amani (Beg. N XXVIII), king at Meroe, about 130—150 A.D.

The choice lies among these four kings and it is manifestly Netekaman alone whose name might have been written Nud-ka-man. The spelling of the name varies otherwise according to whether it accompanies Egyptian work, Egypto-Meroitic work or pure Meroitic work: *imn-nw-t-k* or *imn-nw-t-g* in its Egyptian form; *n-t-k-m-n-i* in its Meroitic form.

In the preceding section, it was concluded that Netekaman imported an Egyptian scribe (or scribes), and that this man had designed the decorations on the chapels of the pyramids Beg. N V and N I, the temple B 1100, and the altar from Wad Ben Naga, while the subsequent work on the temples of Naga and Amara showed the influence of the presence of this Egyptian. It was also stated that the same man designed the restorations above-mentioned of the Great Temple of Amūn, B 500. This last statement depends on the identification just proposed of King Nudkaman with Netekaman. The fact that the redecoration of the damaged parts of the temple had been carried out by an imported Egyptian would explain plausibly the revival of the five-name titulary and the curious spelling of the name Netekaman as Nudkaman. My hypothesis is that this Egyptian was imported primarily to do the restoration of the temple (B 500). This was his first work; he knew nothing of the Meroitic language or writing, did not understand the name, wrote only by ear and sought to give the name an Egyptian form. Under these circumstances the spelling *Nd-k-mn* for *N-t-g-m-ni* or *N-t-k-m-n-i*, is by no means an astonishing performance. It is quite clear that the writer was unaware that the syllable *mn* at the end contained the name of Amūn. When the other Egyptian forms of the name came to be written, the scribe (or scribes) had learned that *mani* = Amūn, and constructed the name Amūn-netek with the name of Amūn at the beginning, as required by Egyptian usage.

From these inscriptions, which seem to me to be connected together by the masonry, I conclude that the king who restored the temple after the Roman invasion was Netekamani = Kheperkerē II. I could detect traces of reliefs on the "south" wall of B 503, but it is only the inner part of the temple and, in particular, B 506 and 514 in which the decorations appear to have been completed. It is this unfinished state of the decoration by which I would justify a conclusion that Shérakarēr may have attempted, on coming to the throne, to finish the decorations of B 500 and especially of B 501.

As a result of this conclusion, Netekaman must have reigned after B.C. 23. But so important a national temple would not have been left in ruins more than a few years, and Netekaman could not have come to the throne long after 23 B.C. in any case.

3. *The Candace of the Roman Invasion of 23 B.C.*

Our knowledge of the invasion of Ethiopia by the Romans under the Prefect Gaius Petronius depends mainly on an account by Strabo in his *Geography* (xvii, i, 54), but is confirmed by Pliny (*Natural History*, vi, xxxv, 4), and by Dion Cassius (liv, 5). Strabo had been in Aṣwān the year before the invasion and was a personal friend of Petronius. His account is therefore contemporaneous and bears internal evidence of its reliability. It has often been translated (see for example, *J. E. A.*, iv, p. 160, by Griffith), and its main statements for our present purpose may be summarized as follows:

- (1) The events which led to the invasion arose out of local frontier troubles in Lower Nubia. If, as I conclude, Ethiopia was divided at this time into two kingdoms, only the Kingdom of Napata would have been concerned. It is not clear that the raid on Aṣwān was a deliberate act of the ruler of Napata.

- (2) The queen (called by her title, Candace), said to have been a masculine woman maimed by the loss of one eye, conducted all the negotiations with the Romans and thus exercised the political powers of a sovereign. The crown-prince played only a military rôle. No king-consort is mentioned, and he may be assumed to have been dead at this time.
- (3) Napata is said to have been "the proper capital" of the queen, and Meroë is not mentioned.
- (4) The queen is said to have ruled Ethiopia at the time of Strabo's visit to Aṣwân, but Ethiopia being divided, it would be the Napatan kingdom which would stand for Ethiopia in the eyes of the Romans at Aṣwân.

I therefore find it necessary to conclude that the Candace of the Roman invasion was a queen of Napata.

In the preceding section the conclusion was reached that the Temple of Amūn at Napata was restored by King Netekaman soon after its destruction by Petronius in 23 B.C. In the chronological list of the pyramids the reign preceding that of Netekaman is represented by Beg. N VI, the tomb of Queen Amanshakhatê, and the comparison of type-forms shows that Queen Amanshakhatê and the queen of pyramid Barkal X were contemporary for at least some part of their reigns. Queen Amanshakhetê was buried in the second largest pyramid at Meroë and evidently died in possession of greater resources than any ruler at Meroë since the time of the division of Ethiopia after the death of the king of Beg. N XIII. The queen of Barkal X, on the other hand, has a miserable little tomb, the smallest and the last of the royal pyramids of the Second Meroitic dynasty of Napata. The obvious conclusion is that this queen of Barkal X was the Candace of the Roman invasion, that her kingdom was broken and her dynasty ended by the sack of Napata and the looting of the east bank of the river from Aṣwân to Napata, and that Queen Amanshakhatê succeeded to the sovereignty over Northern Ethiopia, thus uniting the whole land for the second time under the dominion of Meroë. It is certain that Netekaman and Amantêre, the successors of Amanshakhetê, ruled a reunited Ethiopia. Nor is there any trace left of a ruler in Napata from the time of Netekaman to the conquest of Ethiopia by the Abyssinians, a period of 350 years.

V. PRELIMINARY LIST OF THE KINGS OF MEROË ARRANGED IN CHRONOGRAPHICAL ORDER.

There are nine pyramids in Beg. S Cem. and 41 in Beg. N Cem., making a total of 50 pyramids of kings, queens and crown-princes. The names of the owners of 22 are now known. Omitting the queens' pyramids of S Cem. and N III of the N Cem., there are 43 pyramids of kings and queen-regents, of which 20 have been identified, leaving 23 still unknown. Of these 23, N LVI and N X may, I think, be safely identified as the tombs of Prince Arikhatani and King Shêrakarêr respectively. Other names are known partly from displaced inscriptions in the cemeteries and partly from monuments found at other places. The work of examining this material and comparing it with the dated material is still in hand, and the list here proposed contains only those names which are at present reasonably well identified.

I. THE NAPATAN KINGDOM OF ETHIOPIA.

Pyramid	Length reign	Approx. date, A.C.	Name of Ruler
1. Ku. VIII.....	(16)...	750—744...	Kashta.
2. Ku. XVII	(34)...	744—710...	Piankhy.
3. Ku. XV	(10)...	710—700...	Shabaka.
4. Ku. XVIII.....	(12)...	700—688...	Shabataka.
5. Nuri I.....	(25)...	688—663...	Tirhaqa.
6. Ku. XVI.....	(10)...	663—653...	Tanutaman.
7. Nuri XX	(10)...	653—643...	Atlanersa (Yetlanersa), (Yetalanras).
8. Nuri III	(20)...	643—623...	Senkamanseken.
9. Nuri VI	(30)...	623—593...	Anlaman (Yenalaman).
10. Nuri VIII	(25)...	593—568...	Aspalta (Yespalta), (Yespalat).
11. Nuri IX	(15)...	568—553...	Amtalqa (Amtaraq).
12. Nuri V.....	(15)...	553—538...	Malenaqan.
13. Nuri XVIII.....	(5)...	538—533...	Nalma'aye.
14. Nuri X	(20)...	533—513...	Netaklabataman.
15. Nuri VII.....	(10)...	513—503...	Karkaman.
16. Nuri II	(25)...	503—478...	Astabarqaman (Yestabaraqaman).
17. Nuri IV	(20)...	478—458...	Sa'asherika.
18. Nuri XIX	(5)...	458—453...	Nasakhma.
19. Nuri XI	(30)...	453—423...	Malewiyaman.
20. Nuri XVI	(5)...	423—418...	Talakhaman.
21. Nuri XII.....	(20)...	418—398...	Amanherintarik.
22. Nuri XVII.....	(1)...	398—397...	Baskakeren.
23. Nuri XIII	(35)...	397—362...	Harsiotef.
24. Ku. I	(20)...	362—342...	(Piankhalara?).
25. Nuri XIV	(14)...	342—328...	Akhratan.
26. Nuri XV	(30)...	328—308...	Nastasen.

Total : 26 kings for 442 years ; average reign about 17 years.

II. THE MEROITIC PERIOD OF ETHIOPIA.

Kingdom of Meroe			First Meroitic Kingdom of Napata		
Pyr.	Length reign	Approx. date, A.C.	Pyr.	Length reign	Approx. date, A.C.
28. Beg. S VI	(20)...	300—280	27. (a) Bark. XI.....	(25)...	308—283.
Arikakaman.			Yasruwaman inscription at Barkal.		
29. Beg. S V.....	(15)...	280—265			
Yasruwaman.					
30. Beg. S X.....	(10)...	265—255	(b) Bark. XIV.....	(10)...	275—265.
Kaltaly.			(c) Bark. XV	(10)...	265—255.
31. Beg. N IV	(13)...	255—242	(d) Bark. XVIII.....	(10)...	255—245.
Aman . . tekha.					
32. Beg. N LIII	(17)...	242—225	(e) Bark. VII	(20)...	245—225.
			Napata subject to Meroe.		
33. Beg. N VII.....	(25)...	225—200.....	Ergamenes = Merqetek.		
34. Beg. N IX	(20)...	200—180.....	Azagraman = Tabirm...		
35. Beg. N VIII	(20)...	180—160.....	Nahirqa (?) (Nayakhensan-mery-lais?).		
36. Beg. N XI	(30)...	160—150.....	Nahirqa (?).		
37. Beg. N XII.....	(25)...	150—125.....	(Shanekzekhetê ?).		
38. Beg. N XIII	(25)...	125—100.....			

Kingdom of Meroë

Pyr.	Length reign	Approx. date, B.C.
39. Beg. N XX	(20)...	100—80.
40. Beg. N XXI	(20)...	80—60.
41. Beg. N XIV	(15)...	60—45.
42. Beg. N II	(20)...	45—25.
(Amantabale ?).		
43. Beg. N VI	(30)...	45—15.
Amanshakheta.		
44. Beg. N XXII	(30)...	15 B.C. + 15 A.D.
45. Beg. N I	(30)...	15 B.C. + 15 A.D.
46. Beg. N X	(5)...	+ 15—20 A.D.
47. Beg. N XV	(20)...	+ 20—40.
48. Beg. N XVI	(10)...	+ 40—50.
49. Beg. N XVII	(25)...	+ 50—75.
50. Beg. N XVIII	(25)...	+ 75—100.
51. Beg. N XL	(5)...	+ 100—105.
52. Beg. N XXXIV	(25)...	+ 105—130.
53. Beg. N XXVIII	(20)...	+ 130—150.
54. Beg. N XLI	(10)...	+ 150—160.
55. Beg. N XXIX	(20)...	+ 160—180.
56. Beg. N XXX	(20)...	+ 180—200.
57. Beg. N XIX	(20)...	+ 200—220.
58. Beg. N XXXII	(25)...	+ 200—225.
59. Beg. N LV	()...	+ 225.
60. Beg. N XXXVII	(10)...	+ 225—235.
61. Beg. N XXXVIII	(15)...	+ 235—250.
62. Beg. N XXXVI	(20)...	+ 250—270.
63. Beg. N XXXV	()...	+ 270.
64. Beg. N LI	(20)...	+ 270—290.
65. Beg. N XXIV	(20)...	+ 290—310.
66. Beg. N XXVII	(20)...	+ 310—330.
67. Beg. N XXVI	(30)...	+ 330—340.
68. Beg. N XXV	(15)...	+ 340—355.

Summary of average lengths of reigns:

	Average
(a) 744—653 B.C. = 91 years and 5 kings.....	18.2 years
(b) 653—225 B.C. = 428 years and 26 kings.....	16.5 "
or 25 kings.....	17.1 "
(c) 225—15 B.C. = 210 years and 11 reigns	19.0 "
(d) 15 B.C.—250 A.D. = 265 years and 16 reigns	16.6 "
(Counting N XXII and I as one and omitting N LV)	
(e) 250—355 A.D. = 105 years and 6 reigns	14.2 "
250—260 A.D. = 110 " " 6 "	15.0 "
(Omitting N XXXV)	
(f) TOTAL:—750 B.C.—355 A.D. = 1105 years and 63 reigns ...	17.5 "
or 64 reigns ...	17.3 "

The dating of the reigns of the above chronological list is fixed at the following points:

- (1) Nos. 2—6, the reigns of Piankhy, Shabaka, Shabataka, Tirhaqa and Tanutaman are fixed except for a slight uncertainty as to the beginning of the reign of Piankhy and the end of the reign of Tanutaman.

Second Meroitic Kingdom of Napata

Pyr.	Length reign	Approx. date, B.C.
(f) Bark. VI	(15)...	100—85.
(g) Bark. IV	(20)...	85—65.
(h) Bark. II	(20)...	65—45.
(i) Bark. IX	(15)...	45—30.
(j) Bark. X	(23)...	45—22.

End of Second Mer. Kingdom of Napata.

Netekaman = Kheperkeré II.

Here also N V and LVI.

Amantere = Merkeré II.

(Shérakarê I).

(Akhyesteme ?).

Amanitenmémize = Nebmaré I.

Amankhanêwêl (?) = Nebmaré II.

Artanyeszeme = Kheperkeré III.

Tameqêrze-amani = Kheperkeré IV.

Takizemani.

Tarekenizel (?): Tartên....

Maniterara (ze) = Teraramani.

End of the Northern Cemetery.

- (2) No. 33, the reign of Ergamenes is fixed approximately as contemporaneous with that of Ptolemy IV. The statement of Diodorus that Ergamenes was educated at the court of Ptolemy II is contradicted by other evidence and the rest of his statement about the priestly control of the kingship seems to me very dubious. If the end of the reign of Ergamenes be set ten or fifteen years earlier than 200 B.C., then the average length of the reigns of the great period of prosperity of Meroe must be lengthened to about 20 or 20.5 years. This is not improbable, but the average for the preceding period then becomes about 15.9 or 16.5 years, which is not in accord with the known and apparent lengths of the reigns of the kings at Nuri. However, 240—215 B.C. is not an impossible date for Ergamenes.
- (3) Nos. 44 and 45, the joint reign of Netekaman and Amantére is approximately fixed by the conclusion reached in Chap. IV that Netekaman restored the Amûn Temple at Barkal soon after the Roman invasion of 23 B.C. That fixes the fact that this reign, whenever it began or ended, held sway during a period not long after 23 B.C. I place the accession at 15 B.C. because the conclusions of Chap. IV make it probable that Amanshakhâtê ruled over a united Ethiopia for a time after the Roman invasion and the break up of the Second Meroitic Dynasty of Napata. For this reason I allow eight years between the invasion and the accession of Netekaman, but the period might have been anywhere from 3 to 15 years.
- (4) No. 62, the reign of Maniterar:ze, appears to be fixed by his identity with the king Teraramani of the Philae inscription which is dated to 254 B.C. The name is so similar, differing mainly in the place of the divine name. It is not clear whether the particle *ze* belongs to the name or to the usual word *qéwi* which follows it. N XXXVI is identified as the tomb of Maniterar by an altar inscribed in Meroitic cursive.
- (5) No. 68, represented by N XXV, is the last tomb in the N Cem. and indicates therefore the end of a period in the history of Meroe. A thorough examination of the unoccupied sites remaining in the N Cem. proves that no pyramid was ever built on any of them. It seems only natural to conclude that this end of a period marks the conquest of Meroe by Aizana, King of Axum, about 350 B.C. when he assumed the title of "King of Cush." Thereafter for some time, the kings of Meroe, if there were any, must have been tributary to Axum. The final answer as to the conditions after the end of the N Cem. must await the completion of the excavation of the W Cem. at Begarawiyah.

* I trust that in the above reconstruction of the chronology of Ethiopia a just perspective has been maintained between the points which are certain and the relative probabilities of the uncertain points. It is of interest as an evidence of the reliability of the archaeological methods used that the similar reconstruction of the older Napatan Kingdom of Ethiopia (*Harvard African Studies*, II, p. 63) has proved to contain an error not exceeding 20 years for the reign of Nastasen, the last of the twenty-one kings who cover a period of about four centuries. There Nastasen was set at 307—287 B.C. Now, after the examination of the material from El-Kur'uw, Barkal and Begarawiyah, with a list of the tombs of all the rulers for eleven centuries before us, it is clear that the correct date cannot be far from 328—308 years B.C., possibly with an error of ± 5 years. Personally I feel that the main outlines of the chronology of the whole kingdom are now so well established that they form a basis for a reconstruction of the obscure history of Ethiopia.

AKHENATEN AND THE HITTITES

By NORA GRIFFITH

IN *Aegyptus II* Giuffrida-Ruggieri shows that Egyptian representations of Hittites point to artificial deformation of the skull, a practice known to have existed in Asia Minor, not only from Hippocratic tradition but from the evidence of actual skulls which have been discovered. He suggests that the peculiar shape given to the Egyptian head and figure in the art of the Tell el-'Amarneh period was merely a highly stylistic convention, a copy of the artificially deformed heads of the Hittites, with whom at that time the Egyptians had much intercourse and were on friendly terms.

Förster, writing in No. 61, December 1921, of the *Mitteilungen der Deutschen Orient Gesellschaft zu Berlin* upon the Boghaz Keui tablets, gives us a new and very interesting point in history. Immediately after the death of Tutankhamūn (in Hittite Bibhururiash, identified by Schäfer as Neb-khepru-rē) his widowed queen, here strangely named Dahamun-e?-ka?, wrote to the Hittite king Shubbiluliuma asking him to send one of his sons to be her husband. After enquiries had been made and satisfactorily answered¹, the Hittite prince was dispatched by his father to Egypt. On the way, however, Egyptians of high rank (*Vornehmer*) waylaid and killed him.

This new historical fact seems to fit with Ruggieri's suggestion that what may be called the "Tell el-'Amarneh head" was a copy of the Hittite head and we may have here an explanation of that strange abandonment of ancient traditions which so quickly followed the death of Amenophis III. His wife, the mother of the heretic king, was the daughter of Yuaa and Thuia, the mysterious pair, who, from their special mention on the large scarabs and from their tomb in the Valley of the Kings, were for some reason held in unusual honour, and presumably influenced contemporary affairs in Egypt. We know on the authority of Dr Elliot Smith that the skull of Yuaa has "a distinctly alien appearance," although that of Thuia is in no way distinctive. If it should turn out that one or both of them were Hittites who accompanied their daughter when she went to Egypt to become Amenophis' queen, much would be explained that is now difficult.

They and their daughter would have brought an active admiration of the distorted head and flattened forehead characteristic of their race and made familiar to us by the Egyptian drawings of Hittites, and so would have pushed the new fashion in art which we see in the Tell el-'Amarneh drawings. Dr Elliot Smith says, and this has also been recently noted by the Berlin Egyptologists, that artificial deformation of the head is almost certain in various members of the Amenophis family, and, to quote Dr Elliot Smith again, there seems to have been a hereditary tendency in the royal family to this shape of head. It may well have been introduced through alliances with Asiatic nations, which it is known were made.

The gods of the Hittites were many, but the chief was the solar god², and the Hittite kings were called "the sun." It would have been natural for exiles such as Yuaa and Thuia

¹ SAYCE, in *Ancient Egypt*, 1922, Part III.

² MEYER, *Reich und Kultur der Chetiter*, p. 31.

to magnify the power of the greatest god of their native land, especially when they found him as one of the more exalted deities in the Egyptian pantheon. We learn moreover from the Boghaz Keui tablets that the Hittite kings were humane and kindly, and were even humble to the point of confessing their faults. These characteristics and ideas the parents and daughter would have honoured, and as the former would almost certainly have had more power over their daughter Queen Taia and over her son Akhenaten than over their son-in-law Amenophis III, it would be only natural that after his death their influence over the widowed queen and the young king should have increased, freed as it would have been from the restraining hand of a conservative and typically Egyptian monarch.

Now if Taia was a Hittite by birth, with "heretical" beliefs and views and, aided and abetted by her parents, taught these to her son, might not this be the cause of the revolution Akhenaten's reign brought about in Egyptian religion and policy, as also of the introduction of his strange art with its unconventional and affectionate representations of family life, all of which things have puzzled the student of Egyptian history? Akhenaten, like converts of all times, was over enthusiastic, carried the new ideas to excess, relaxed the reins of government his predecessors had held tightly, and thus lost the respect of Egypt's foreign subject races and perhaps of his own people, while he certainly incurred the contempt and hatred of the old priesthood.

This is all problematical, but some contributory evidence is now given by the Boghaz Keui tablets which, as we have seen, show the newly widowed Ankhesenamen wishing to ally herself in marriage with a Hittite prince. What more natural, if she was partly Hittite by birth, strongly Hittite in education and feelings, and well aware that the people and the priests of her adopted country were against her as representing the hated heretic family, than that she should at once seek to strengthen her position and to restore what she considered true culture and religion by marrying one of her own countrymen, the son of a powerful king such as Shubbiluliuma? The priests, when they learned of the proposed marriage, would as naturally have taken steps to prevent the return of the detested foreigner and his religion, and, when they found the Hittite prince actually on his way to Egypt, it would have been at their instigation that he was waylaid and murdered. If there is any truth in this hypothesis, the assassination of the prince and its accompanying policy may also help to account for the enmity between Egypt and the Hittites which, from this period, lasted more or less continuously until the famous treaty between Ramesses II and Khattushili.

A WOODEN FIGURE OF AN OLD MAN

By H. R. HALL, D.LITT., F.S.A.

With Pl. XX, fig. 2.

THE little wooden figure, only about four inches high, which is illustrated on Plate XX, fig. 2, is an unusually good example of its kind, and the man who made it was a fine artist. It is one of those figures from the models of courtyards, granaries, and boats which were so commonly placed with the coffins in the tombs of the Middle Kingdom, but is to be put in a very different category from the majority of these, which are generally so crudely fashioned, often of bad, soft wood, the deficiencies of which are supplied by plaster, and so rudely painted or rather daubed with red or yellow or black. This is the work of a practised carver with all the sculptor's feeling for plastic material, so that, though in wood, it resembles a wax model in effect, so plastic is the treatment of the head and shoulders and so *un-wooden* the pose of the figure. Were the arms extant and the staff held in the right hand, and the feet complete, this would be a fine specimen of Egyptian art. As it is, the figure of the little, spare old man with the big head drawn to one side by the rheumatisms of age is very realistic. The enormous ears are characteristic of the type. The eyes and other features are just indicated by the little black paint, quite enough for the purpose, that still remains on the face. The garment, an aproned *šenzyt* of the usual kind, tied over the navel, is restrainedly but admirably expressed in the hard wood, almost resembling ebony, but much lighter in colour, of which the figure is made. One might almost describe this figure as a masterly little sketch of an old man in wood. Who he was is not evident. The figure is hardly hieratic enough in pose to be the image of the owner of the tomb from which it originally came. This is not the master. He is perhaps the aged steward, the *m-r' pr* of his lord, marshalling the villeins before him or directing the operations of the farm, or, less probably, the *reis* of his boat. In any case his is the figure of a worthy and trusty ancient retainer, we may be sure. It was in private possession, and its present home is not known.

A NEW ZENON PAPYRUS AT THE UNIVERSITY OF WISCONSIN

By W. L. WESTERMANN, CORNELL UNIVERSITY, AND A. G. LAIRD, UNIVERSITY
OF WISCONSIN.

IN 1920 through the kind assistance of Professor Francis W. Kelsey, of the University of Michigan, and Mr Bernard P. Grenfell, of Oxford, the University of Wisconsin was able to secure a number of unpublished Greek papyri. Of these the one which is obviously the earliest in date has proved to be from the group of Zenon documents, the results of which have been admirably presented in Professor Michael Rostovtzeff's recent book, *A Large Estate in Egypt in the Third Century B.C.*¹ It is to be regretted that Professor Rostovtzeff did not see the document which we now publish, that he might have incorporated it in his study of the Zenon correspondence. Fortunately the results obtained from the papyrus serve only to expand his work in minor details and do not warrant changes in any of his major conclusions. We hasten to publish the document because of the value which it may have in guiding the interpretation of similar pieces of the Zenon group. For there is always the chance that other portions of this roll, or documents of like type, will appear soon.

P. WIS. INVENTORY, No. 1².

Account of Farm Work and Payments for It. 255-54 B.C.

From Philadelphia in the Fayum. 11 $\frac{3}{4}$ x 4 $\frac{1}{2}$ in.

- [κα Καὶ εἰς τοὺς προκαθαίροντας καὶ ἐμπυρί-]
 [ζοντας τὴν πικρίδα ἐν τῷ β περιχώματι]
 [τῷ πρὸς νότον κροτωνοφόρου εἰς]
 [σώματα κ ἀνὰ (τὰ τρία μέρη ὀβολοῦ) (δραχμαὶ) β (τριώβολον)]
 1 [καὶ τοῖς ἐν τῷ] α περιχώ[ματι τῷ πρὸς νότον]
 εἰς σώματα κ [(δραχμαὶ) γ (διώβολον)]
 καὶ Ὀινῶφρι εἰς τοὺς τὸ σήσα[μον τίλλοντες]
 ἐν τῷ α περιχώματι τῷ πρ[ὸς νότον εἰς]
 5 σώματα ι ἀν(ἀ) (ἡμιωβέλιον τέταρτον) [(δραχμὴ) α (ὀβολός) (ἡμιωβέλιον)]
 καὶ Πάσιτι εἰς τοὺς τὰ ὑδραγωγ[ία κατασκευ-]
 αζοντας ἐν τῇ λινοφόρῳ σώμ[ασιν κ (δραχμαὶ) γ (διώβολον)]
 καὶ Κερκίῳ εἰς σκαλιδευτὰς τ[οὺς ἐν τῷ]
 β περιχώματι διὰ τὸ ῥαγάδας [εἶναι καὶ μὴ]
 10 δύνασθαι ἀπὸ ἀρότρου εἰς κ [(δραχμαὶ) γ (διώβολον)]
 καὶ εἰς παιδάρια τὰ προκαθαίρο[ντα καὶ]
 ἐμπυρίζοντα τὴν πικρίδα [λ ἀν(ἀ) (ἡμιωβέλιον) (δραχμαὶ) β (τριώβολον)]
 ~ (γίνεται) τῆς ἡμέρας (δραχμαὶ) λς (τετρώβολον)]

¹ The book appeared as No. 6 in the University of Wisconsin Studies in the Social Sciences and History, Madison, Wis., 1922.

² We suggest the abbreviation P. Wis. for citation of the papyri at the University of Wisconsin. The inventory numbering is that made by Professor Arthur S. Hunt, of the University of Oxford.

- κβ [...] καὶ εἰς τοὺς προκαθαίροντας κ[αὶ ἐμπυρί-]
 15 ζοντας τὴν πικρίδα ἐν τῷ β περιχώματι
 τῷ πρὸς νότον κροτωνοφόρου [εἰς]
 σώματα κ ἀν(ἀ) (ἡμιωβέλιον τέταρτον) [(δραχμαὶ) β (τριώβολον)]
 καὶ τοῖς ἐν τῷ α περιχώματι τῷ πρὸς νότον
 κροτωνοφόρου εἰς σώματα [κ (δραχμαὶ) γ (διώβολον)]
 20 καὶ Ὀνῶφρι εἰς τοὺς τὸ σήσαμον τίλλοντ[ας]
 ἐν τῷ α περιχώματι τῷ πρὸς νότον
 εἰς σώματα ι ἀν(ἀ) (ἡμιωβέλιον τέταρτον) (δραχμαὶ) α (ὀβολός) (ἡμιωβέλιον)
 καὶ Πάσιτι εἰς τοὺς τὰ ὑδραγωγία κατα-
 σκευάζοντας ἐν τῇ λινοφόρῳ σώμασιν κ [(δραχμαὶ) γ (διώβολον)]
 25 καὶ Κερκίῳ εἰς σκαλιδευτάς τοὺς ἐν τῷ ι
 β περιχώματι διὰ τὸ ῥαγαδῶδη εἶναι
 καὶ μὴ δύνασθαι ἀπ' ἀρότρου εἰς κ (δραχμαὶ) [γ (διώβολον)]
 καὶ εἰς παιδάρια τὰ προκαθαίροντα καὶ
 ἐμπυρίζοντα τὴν πικρίδα λ ἀν(ἀ) (ἡμιωβέλιον) (δραχμαὶ) β [(τριώβολον)]
 30 ~ (γίνεται) (δραχμαὶ) ις (ὀβολός) (ἡμιωβέλιον)
 κγ τοῖς τὸν ὑδραγωγὸν ἐργαζομένοις ἐν τῷ
 β περιχώματι ὥστε ἀγαγεῖν τὸ ὕδωρ εἰς τὸ γ
 ὅπως πο]τισθῇ τὰ ὑψηλὰ Ἀτμεῖ Πετήσιος
 Ἀφροδ[ιτοπο]λίτη αἰοιλίων τ (δραχμαὶ) κ
 35 κ[αὶ]] εἰς σώματα κ τὰ ἀποχωρύνν[α]
 Verso (2nd h.) (ἔτους) λα ἀπὸ τοῦ Ἀρτεμ[ι-]
 δώρου τρ(απεζίτου) ἀπὸ Θῶθ [α ?]
 ἕως Τῦβι λ
 Μεσορὴ ε

NOTES.

The four lines restored at the beginning are clearly indicated because the five following items posted for the 21st day occur in the same order in the account of the 22nd day. Further the work performed is the same, and also the number of hands, wherever the number is preserved.

The total amount paid out for labour on the 22nd was 16 drachmas, $1\frac{1}{2}$ obols. For the 21st the total payments were 36 drachmas, 4 obols. We judge that at least 20 drachmas of the difference, possibly the entire amount, is to be accounted for by the digging of water channels, as on the 23rd (lines 31—34). One might, of course, restore the 20 drachmas for digging and account for the remaining discrepancy of $2\frac{1}{2}$ obols by increasing the number of men or boys working on the 21st. Five more boys, for instance, would increase the sum by $2\frac{1}{2}$ obols. It seems more reasonable, however, to suppose that the working crews on each agricultural job were kept intact for the next day's work. Furthermore these crews seem to run by even tens, 10, 20, and 30. As the amount of earth thrown up in a day by the 20 men working at the ὑδραγωγός would be much more likely to vary, we are inclined to restore for the digging on the 21st 20 drachmas, $2\frac{1}{2}$ obols ($\varsigma\kappa = \varsigma$).

Line 1. τῷ πρὸς νότον is supplied from line 21. Cf. P. Lond. Inv. 2313 recto, line 3, ἐν τῷ πρὸς βορρᾶν πρώτῳ περιχώματι. We have had the privilege of seeing Mr H. I. Bell's transcript of this unpublished London papyrus sent to Professor Rostovtzeff and have checked his readings upon a photostat copy furnished us through Bell's kindness.

Line 2. We have filled in the total amount expended for each item of the posting because these amounts are given in every case where we have a completed line. In line 27, where the wages paid, as we assume, were 1 obol per day, it is noticeable that the rate of pay is not given. We have, therefore, not inserted ἀν(δ)... in lines 19, 24, where also we assume the rate of pay to be 1 obol per day.

Line 6. ὑδραγωγία are "small supply-ditches." See Westermann, "Inundated Lands," in *Class. Phil.* 1920 (xv), p. 127 and note 3.

Line 7. λινοφόροι, "land planted with flax." The adjective appears here for the first time, so far as we know¹.

Line 11. παιδάρια. Despite the customary translation of this word in the papyri as "slaves," we retain the regular meaning of "boys." The process of προκαθαίροντας καὶ ἐμπυρίζοντας is lighter work than that of preparing the supply-ditches, which presumably is paid at an obol per man (lines 23, 24). The "cleaning and burning," when done by men, is paid at $\frac{2}{3}$ of an obol (lines 14—17). We see no reason to suppose that slaves would be paid a lower wage than free labour. Probably this item, like the preceding, was paid to Kerkion. In P. Lond. Inv. 2313, he has a similar gang of 30 παιδάρια.

Line 12. πικρίδα. The meaning which immediately suggests itself for this passage is that these boys are "cleaning and burning the endive." This interpretation finds some support in P. Lond. Inv. 2313, an order to Artemidorus to pay to Kerkion, Onnophris, and others, amounts similar to those given in this document. Among the items is a payment to Labos for those working in the second enclosure προκαθαίρουσι τῶι ἐρεβίνθω[ι]. We cannot base any difference in the translation upon the dative ἐρεβίνθωι, as compared with the accusative, προκαθαίροντα τὴν πικρίδα, in our document, because the writer of P. Lond. Inv. 2313 is quite devil-may-care in his Greek constructions. προκαθαίρουσι τῶι ἐρεβίνθωι therefore means simply "cleaning the chick-pea (bed)."

(The understanding of πικρίδα as "endive" is, however, made impossible, in my judgment, by the addition of ἐμπυρίζοντα and by the technical consideration that we would thus have men employed in cleaning and burning endive at the beginning of the season when the endive was still young and green. From the agricultural point of view this explanation must be eliminated. I have, therefore, been forced to another and more rational explanation. It seems to me that this must be "alkali land," in the sense of land containing an over-accumulation of soluble salts. I identify it with the γῆ πικρά of Theophrastus *de causis plant.* vi, 3, 2. Such land would be actually "bitter" to the taste, as was clearly understood by Theophrastus, *l. c.* vi, 4, 1. Theophrastus does not distinguish "salty" (ἀλμυρός) from πικρός in his enumeration of the kinds of taste, τοῦτο δὲ ἂν τις τὸν ἀλμυρὸν οὐχ ἕτερον τιθῇ τοῦ πικροῦ, although others did distinguish between the two. In the previous chapter (vi, 3, 2), Theophrastus does seem to distinguish "salty" soils from "bitter" soils; but both of these types would be alkaline, the difference in taste being due to the variations in chemical constituents. Modern soil analysis differentiates solely on the basis of chemical compositions, leaving aside the evidence of taste. But it is possible that Theophrastus is distinguishing "white alkali" soil from "black alkali" soil, which would be more pungent (πικρά), as it is more toxic, than the former type.

I have not found the word πικρίς elsewhere, except in the meaning of "endive." The

¹ H. I. BELL has called our attention to the fact that the word appears also in P. Lond. Inv. No. 2361 (unpublished).

² See WILCKEN in *Archiv für Papyrusf.* v, 253; P. Oxy. IV, 730, 13; WASZYŃSKI, *Die Bodenpacht*, 125.

alkaline condition, however, has always been characteristic of the Egyptian land, as of all arid soils under irrigation. *πικρίς*, therefore, is identical with the *ἀλμυρίς* (the salty land) so well known from the Kerkeosiris land registers of P. Teb. I and from many other later land documents. W. L. W.)

The symbol for $\frac{3}{4}$ in this line is C7, composed of one half an O (C) for *ὀβολός*, with a conventionalized T attached, for *τέταρτον*.

Line 16. It is probable that a proper name is to be restored in this line in the same case and position in the sentence as *Ἀτμεῖ* in line 33. The sentence would then read *πρὸς νότον κροτωνοφόρου [τωῖ δέῖνα εἰς] σώματα κ.* The item in 18—19 would be paid to the same person.

Line 19. The number *κ* is inserted from line 2, *εἰς σώματα κ*, because the entries are posted in the same order for the 22nd as for the 21st day. Probably it is the same labour gang. The total payment of 3 drachmas, 2 obols, is determined in connection with the total for the day and the 20 workmen and their pay in lines 24 and 27. The method of calculation was as follows:

(1) The total for the 22nd day is 16 drachmas, $1\frac{1}{2}$ obols ($97\frac{1}{2}$ obols) of which $37\frac{1}{2}$ obols are accounted for in lines 17, 22, and 29, leaving 60 obols for the amounts to be added from lines 19, 24, and 27.

(2) If we should fix the pay of the 20 men of line 24 and the 20 men of line 27 at $\frac{3}{4}$ obol, the total would be 30 obols. This would leave a remainder of 30 obols for the 20 men of line 19, who would then be paid at the rate of $1\frac{1}{2}$ obols a day, or double the pay of those who were engaged in burning the bitter land and plucking sesame (lines 14—17, 3—5, and 20—23). The work being done by the labourers of line 19 is not specified. But it could not be heavier work than the ditch-digging (lines 23—24) and the hoeing (lines 25—27). There is no reason why it should be paid at a higher rate, and particularly at double the rate received by the ditch-diggers and hoe-men. It has, therefore, seemed most reasonable to equalize the pay of the 60 men concerned at 1 obol per day.

(3) One obol a day is about the customary rate of pay for unskilled labour in the middle of the 3rd century B.C.¹

(The totals in lines 2, 7, 10 have been restored upon this basis so as to correspond to those in lines 19, 24, 27. W. L. W.)

(While the lacking 60 obols are most simply explained as above by restoring at the rate of an obol a day for the 60 men in lines 19, 24, 27, it seems to me that the failure to mention the kind of work in lines 18—19 may be due to its being the same as that in lines 14—17, but in a different *περίχωμα*. In that case the rate of pay would be the same, 15 obols for 20 men, and the remaining 45 obols would be accounted for by assuming one obol, one chalcus a day for the heavier work in lines 24, 27. A. G. L.)

Line 33. *ἀν* could not be inserted without crowding the letters.

Verso. The date Θωθ[α] suggests itself because the banker's payments would naturally be posted by full months and because this accounting closed with the last day of Tybi. It is, however, by no means certain.

¹ See the tables of Angelo Segré in his *Circolazione Monetaria* (Rome, 1922), pp. 112—113. Cf. FR. OERTEL, *Die Liturgie* (Leipzig, 1917), p. 14 and note 2, who puts the daily wage at $\frac{3}{4}$ — $1\frac{1}{2}$ obols for our period.

TRANSLATION OF LINES 14—35¹.

"22nd. Paid also to those cleaning up beforehand and burning the bitter land in the second enclosure, the one to the south of the croton field, for 20 labourers, at $\frac{3}{4}$ of an obol, 2 drachmas, 3 obols.

And to those in the first enclosure, the one to the south of the croton field, for 20 labourers, 3 drachmas, 2 obols.

And to Onnophris for those plucking sesame in the first enclosure, the one toward the south, for 10 labourers at $\frac{3}{4}$ of an obol, 1 drachma, $1\frac{1}{2}$ obols.

And to Pasis for those preparing the small supply-ditches in the flax field, for 20 labourers, 3 drachmas, 2 obols.

And to Kerkion for hoers, those (working) in the second enclosure because the soil was cracked and could not be ploughed, for 20, 3 drachmas, 2 obols.

And for boys, those cleaning and burning the bitter land, 30 of them, at $\frac{1}{2}$ an obol, 2 drachmas, 3 obols.

Total 16 drachmas, $1\frac{1}{2}$ obols.

23rd. For those working at the supply-ditch in the second enclosure so as to lead the water into the third enclosure in order to irrigate the high ground, to Atmeus, son of Petesis, of Aphroditopolis, for 300 *aiolia*, 20 drachmas.

And to.....for 20 labourers engaged in banking up....."

Verso: "Year 31. From Artemidorus, banker (account) from Thoth (1st?) to Tybi 30th. Mesore 5th."

PERSONS OF THE DOCUMENT.

The certainty that this papyrus is of the Zenon group lies in the fact that the names of four of the five persons here mentioned occur in other Zenon documents. The identification of these four men is not to be doubted.

Artemidorus. Rostovtzeff, *Large Estate* (see Index I), has distinguished six different Greeks of this name mentioned in the Zenon documents. This Artemidorus, the banker (*τραπεζίτης*), is a different person from the manager of the house of Apollonius (Rostovtzeff, pp. 31, 40, and Edgar, *Archives of Zenon*, Nos. 11, 42, 49²). He is certainly the same banker Artemidorus who signed a receipt for the bath tax in the year 253/2 B.C. (P.S.I. 355). He is also to be identified with the Artemidorus of the unpublished P. Lond. Inv. 2313, who receives an order to pay out sums for farm work to seven men, among whom appear our Kerkion and Onnophris. Possibly he is the Artemidorus of P.S.I. 378 who is back in some payments to Perdiccas, for one month of the year 35 and for four months of the year 36.

Onnophris. The references to this man, evidently an Egyptian farmer, are P.S.I. 422; 427; 588; 639; P. Ham. 27; and P. Lond. Inv. 2313 recto. In the latter document a payment of $7\frac{1}{2}$ obols is made to Onnophris for ten workmen who have been working in a poppy field. The rate of pay is $\frac{3}{4}$ of an obol, which is the same as in lines 5, 17, and 22 of our document. The kind of work is lost in a lacuna; but it should probably be restored as *προκαθαίροντας*, following line 14 of our document. Less certain is the identification of one Onnophris mentioned in P.S.I. 322 (248-47 B.C.) as father of a son who is inexperienced in farming and rather careless. The Onnophris of P.S.I. 427 is called *γεωργός*.

¹ We begin the translation with the 22nd day (line 14) as the wording of the account of the 21st is so like it as not to require translation.

² Published in the *Annales du Service des Antiquités de l'Égypte*, XVIII, XIX, and XX.

Kerkion. For his position see Rostovtzeff, *Large Estate*, Index I, s.v. The references to this Kerkion are P. S. I. 422; P. Petrie III, 37 (b) col. 3, 19, and col. 4, 5, 10; P. Lond. Inv. 2313, recto and verso. Identification with Kerkion, father of Jason, in P. S. I. 626, col. 1, 5 (Ἰάσων Κερκίωνος) and 670, 5, and Edgar, *Zenon Papyri*, No. 53, is very improbable, for Jason, son of Kerkion, is a Carian Greek from Kalynda (Ἰάσων Κερκίωνος Καλυνδεὺς τῶν περὶ Ζήνωνα) and of the petty court circle of Zenon. Our farmer Kerkion is never called a Kalyndian.

Pasis. The identification of our Pasis with the man of the same name in P. Petrie III, 37 (b) col. 3, 7, col. 4, 17, is greatly strengthened by the proximity of the names of Kerkion and Pasis in both documents. If this be correct he is Pasis, son of Petobis. The Pasis, son of Paos, in P. S. I. 626 is then another man, a small shepherd pasturing 35 sheep of Zenon with 18 of his own.

Atmeus. Son of Petesis, of Aphroditopolis, does not appear elsewhere.

EXPLANATION.

The document is a small portion of a roll or series of rolls. This fragment covers in part three days out of a period of five months, Thoth to Tybi 30th, of the year 31 of Ptolemy Philadelphus, 255-54 B.C. It was kept by the bureau of Artemidorus, banker,—*trapezites* of the village bank at Philadelphia, no doubt¹. He was still *τραπεζίτης* in the year 33 (P. S. I. 355) when Python was *trapezites* of the central bank of the Arsinoite nome at its capital Crocodilopolis (P. Petrie III, 64 a (7) of the year 33, and 64 a (3) of the eighth year of Euergetes)². The position at Crocodilopolis being filled by Python, the bankership at Philadelphia, which is the provenience of the Zenon correspondence and the location of the great *δωρεά* of the *dioecetes* Apollonius, is almost certainly the one held by Artemidorus.

The account is dated Mesore the 5th. That is, the receipts for daily payments, made in money from the village bank of Philadelphia on the account of the estate of Apollonius, seem to have been assembled at the end of the year and recorded by days, in preparation for the annual accounting to Apollonius of the profits from the estate and, presumably, for the reckoning of his required payments of rents and taxes upon his "gift land" to King Philadelphus. The *trapezites*, Artemidorus, paid out money upon written order of some responsible person. In P. Lond. Inv. 2313 we have such an order, addressed to Artemidorus, empowering him to pay sums to Kerkion, to Mys, and to Petemis (?) for boys who had been weeding; to Labus, Andronicus, Hermiogenes, and Onnophris, for men who had been cleaning and planting³. Such orders as this, when paid, must have been filed in the bureau of the *trapezites*, and would become the basis for a periodic account, such as is represented by P. Wis. Inv. 1. No doubt the *trapezites* also made out and kept receipts for these payments which were filed and used in checking the accounts. We have some receipts for the

¹ This is a suggestion made to us by Rostovtzeff. Cf. for the bank at Crocodilopolis—later Arsinoë—WILCKEN, *Griech. Ostraka*, I, 632, and *Grundzüge*, I, 1, 152.

² Python. Cf. P. Halensis I, *Dikaionmata*, Berlin, 1913, p. 221, and the new "Petit Supplément aux Archives de Zénon," line 16, published by Pierre Jouguet in the *Cinquantiennaire de l'École Pratique des Hautes Études*, 1921, p. 223.

³ The numbers of labourers in the gangs are given, just as in our document. They are 30, 15, 30, 10, 10, 10. The suggestion offers itself that this grouping by tens was made, principally, because of the consequent ease of computation and payment at the end of the day and the greater simplification in making up the complete records.

customary cutting of brush growth and burning over the fields, which took place at the end of the agricultural year (*ξύλοκοπία καὶ ἐμπυρισμός*), chiefly in the month of Mesore (August)¹. But in all these cases the wages were paid directly by Panakestor, chief manager of the Philadelphia estate of Apollonius preceding Zenon's appointment².

The situation presented by this document—that a public official, the *trapezites*, pays out small sums for an estate and has an itemized account rendered therefor by his bureau, covering a long period—cannot be regarded as typical of the Ptolemaic administration except for the great “gift estates” of the third century B.C. Artemidorus was, of course, a state official. But he was, also, even as an official, subordinated to the personal interests of Apollonius, holder of the *δωρεά*. The activities of the *trapeza* of Philadelphia seem to be inseparable from those of the estate managed by Zenon. The document, therefore, greatly strengthens the conclusion advanced by Rostovtzeff³, that the grant of the 10,000 *arourae* about Philadelphia to Apollonius included the village itself and placed upon Apollonius the complete responsibility for its administration. Zenon, the representative of the *dioecetes*, on the estate and in the village, controlled entirely the local officials.

Rostovtzeff's conclusion, that the Philadelphia estate is in its administration a miniature of Egypt itself and that Apollonius appears as a little Ptolemy within the confines of the estate and the village, finds further verification in the relation of the farmers, Onnophris and Kerkion, to the estate and its management. These men are important farmers (*Ὀννώφρει γεωργῶι* P. S. I. 427) probably supervising in addition large sections of agricultural land, as was the case with a son of Onnophris (P. S. I. 522) who is called “chief (*ἐπιστάτης*) of 300 *arourae*” under Zenon⁴.

Kerkion's holdings were evidently large because the boundaries of his lands were used, along with a “royal road” and other outstanding features (P. Petrie III, 37 (b) col. III, 19—20 and col. IV, 5—6) in the description of new dikes which were being constructed.

Rostovtzeff called our attention to the offer, made by one Agathon to Zenon, to lease a farm of 265 *arourae*, which had not been paying⁵. After offering definite terms for rent, including an agreement upon crop rotation, Agathon asks for a salary (*ὀψώνιον*) of ten drachmas per month. It is possible that Agathon would also become an *ἐπιστάτης σξε ἀρουρῶν* on acceptance of his terms, and that such men as Agathon, Kerkion, Onnophris, *et al.*, received a salary in their position as “chiefs” or supervisors over large sections of the estate.

In our document Onnophris and Kerkion, along with Pasis and Atineus, supply the gangs of labourers who work upon that portion of the *δωρεά* which is farmed directly under

¹ P. S. I. 338; 339; 506; 560, all dated in Mesore. The work of clearing the fields probably went on as opportunity offered and necessity dictated, throughout the year. But the especial clearing for the next year's planting occurred at the end of the year. On Pachon 14 (May) Maron writes to Zenon that the harvesting, wood-cutting, picking of sesame, and burning (stubble) was completed.

² Panakestor's title in the year 29 (257–56 B.C.) was *δ παρ' Ἀπολλωνίου*, P. S. I. 338 and 339. ROSTOVITZEFF, *Large Estate*, pp. 39–40, offers the explanation that Panakestor was displaced as manager in favour of Zenon. For Zenon is also addressed as *δ παρ' Ἀπολλωνίου ἐν Φιλαδελφείᾳ* in the year 29 (EDGAR, *Zenon Pap.* 23).

³ ROSTOVITZEFF, *Large Estate*, p. 49 ff.

⁴ Cf. P. S. I. 400 and 577, where farms rented out of the “gift” of Apollonius run to 265 and 150 *arourae* respectively. It may well be that the term *ἐπιστάτης τῶν...ἀρουρῶν* was the regular one applied to such men as Onnophris and Kerkion at the time.

⁵ P. S. I. 400, 16–17; ROSTOVITZEFF, *Large Estate*, p. 83.

Zenon's management, rather than by sub-leasing. This is further illustrated in P. Ham. 27, of 250-49 B.C., in which a subordinate of Zenon writes to him that Onnophris has sent to him a team of oxen and three farmers for the farm work, with orders that the farmers be paid. The writer asks Zenon for eight drachmas for this purpose. There is no mention of money to be paid for the ox-team. The conclusion is evident that these important farmers and labour bosses are under some form of obligation to supply hands for the estate, but not at their own expense. That is, the supplying of labour is not an obligatory service of their lease relationship with Apollonius, holder of the "gift." But the furnishing of ox-teams, both to the estate itself, as worked directly under Zenon (P. Ham. 27, 13 ff.), and to the smaller lease-holders (e.g. Psentaes of P. S. I. 422) is obligatory, no expense therefor falling upon the estate management. Psentaes writes as follows to Zenon: "Onnophris furnishes¹ ox-teams to Psenobastes and has given him eight already; but Kerkion does not give me more than four up to the 18th. When I protested earnestly to him that he does not produce the (remaining) four teams for me, he gave me one other from the 19th and another one from the 21st; and he selected the weaker ones²." P. Ham. 27, 16-17, seems to indicate further that Onnophris was obligated to furnish fodder for the animals upon the estate.

Rostovtzeff is of the opinion³ that the peasants had no cattle whatever. This would imply that all the draft animals, even those furnished by Onnophris, Kerkion, *et al.*, belonged to the estate of Apollonius and that they were parcelled out to these large lessees subject to call for work upon the farms of the lesser peasants, whether these peasants were working under a group system or under individual contracts.

Against this view stand these facts: that the peasants themselves owned small cattle, at least⁴; that in case the draft animals to be furnished by Kerkion⁵ and Jason⁶ belonged to the estate at Philadelphia, these worthies would necessarily have been more scrupulous about furnishing their required quotas than they actually were; and that an implication of a compulsory service resting upon Onnophris and Kerkion to furnish draft animals lies in the word *χορηγεῖ*, which is incompatible with any other idea than that of outright ownership of the cattle in question⁷. Ultimate decision upon the matter awaits a comprehensive study of the cattle industry in Ptolemaic and Roman Egypt.

The relation of Onnophris, Kerkion, Pasis, and Atmeus of this document to the holder of the "gift estate," Apollonius, is roughly similar to that of the large farmers to King Ptolemy in the regular land system apart from the *δωρεαί*. These four men have obligatory services to Apollonius just as the royal peasants have to the King.

The document P. Wis. Inv. 1 has several points which are interesting from the agricultural point of view. The work for which the payments were made is palpably that of the planting season, as the work itself and the terminal dates (Thoth—Tybi) show. It is not clear what is meant by "plucking sesame" (*τὸ σήσαμον τίλλοντας*) (line 3) at this season. Sesame and croton were sown at the same time (P. Rev. 41, 14-15) and the crops of sesame, croton, and cneus were gathered in at the same period of the year (P. Rev. 42,

¹ *χορηγεῖ*, a technical expression implying a compulsory service. Cf. P. Lond. Inv. 2097 in ROSTOVITZEFF, *Large Estate*, where *χορηγεῖν* is used about furnishing seed grain.

² Cf. P. Lond. Inv. 2097, p. 82, and P. S. I. 577, where Jason of Kalynda is to furnish draft animals.

³ *Large Estate*, p. 107 and note 81.

⁴ P. S. I. 626, verso, col. 1, where the man Pasis is listed as having 18 sheep of his own and 35 from Zenon.

⁵ P. S. I. 422.

⁶ P. S. I. 577, l. 15 ff.

⁷ P. S. I. 422, 2.

3—4). According to P. S. I. 499, a letter of Panakestor to Zenon, dated Choiak 30th, the planting of croton and sesame took place late in Choiak. P. S. I. 500, 4 and 502, 27—29 indicate that the crop was gathered late in Pharmouthi or early in Pachon. The possibility which suggests itself as most likely is that the phrase refers to thinning out the young sesame plants to attain better growth.

The twenty men working under Kerkion on the 21st and 22nd were engaged in hoeing land, the surface of which had become so cracked, or seamed, by the heat of the sun that it could not be turned by the plough successfully. This would inevitably occur with arid land which had been covered with water and been left too long unploughed. A hard crust would form which would later crack¹. The plough would shove the crusted pieces apart, but not break them up. It is completely explained by what the farmer Psentaes wrote to Zenon, complaining that Kerkion had delayed sending him a sufficient number of ox-teams (P. S. I. 422). He had received four teams up to the 18th. An additional team had been sent on the 19th and one on the 21st, and these were the weaker draught animals. Consequently "the soil is full of cracks because it has never been ploughed," and the workmen were unable to turn over more than $2\frac{1}{2}$ *arourae* a day by using the mattock (*διβολοῦντες*). In our document, just as in the case of Psentaes, the difficulty is met by using the gang with hoes and not attempting to plough. Smyly has recently published portions of a Ptolemais land report² in which 8 *arourae* of *πεφαραγγωμένης* (*γῆς*) are listed along with 149 *arourae* of (flooded) wheat land and 15 *arourae* of unflooded land (*ἄβροχος*). It is noteworthy in Smyly's document that, although the labour of preparing this cracked soil for cultivation was certainly heavier than that of land which could be easily ploughed, no diminution occurred in the rent on that account. Flooded, unflooded, and "cracked" land all paid at the same rate, $4\frac{1}{2}$ *artabae* to the *aroura*. The state did not regard this type of mischance as a cause for reduced rents³.

The explanation of lines 11—12 and 28—29 of our Zenon account is not so simple. The work is evidently light, because it is done by a group of 30 boys paid at $\frac{1}{2}$ an obol per day, which is the half of the current rate paid to men for the heavier work. We have already identified the "bitter soil" (*πικρίς*) as alkaline land. These boys are cleaning the alkaline soil and burning something upon it. This work is certainly *not* the same as chopping out of underbrush and the burning of the stubble (*ξύλοκοπία καὶ ἐμπυρισμός*) recorded in a number of receipts and in one letter among the Zenon papyri⁴. The latter operation is the annual cleaning up of the ground for the flooding and the planting of the next season. In all cases it occurs at the close of the agricultural year, after the harvest⁵. The preparatory

¹ P. S. I. 422, 14—20, ἡ δὲ γῆ ῥηγγῶν πλήρης ἐστὶν διὰ τὸ μήποτε αὐτὴν ῥόσθαι. οὐ δύνανται οὖν πλείω βλά (ἀρουρῶν) τὴν ἡμέραν καταβάλλειν διβολοῦντες. Rostovtzeff's explanation of the letter of Psentaes, in *Large Estate*, p. 82, is not satisfactory. He implies that the soil was cracked because it was newly reclaimed land which had never been ploughed. This is not the meaning of Psentaes.

² J. G. SMYLY, *Greek Papyri from Gurob*, No. 26, Intro., in the Cunningham Memoirs XII of the Royal Irish Academy, Dublin, 1921, p. 44.

³ Compare the contention of Westermann in regard to the *ἄβροχος* γῆ and his explanation of the rental required from it in *Classical Philology*, xvi (1921), 169—177.

⁴ P. S. I. 338, 339, and 560. Cf. the receipt for ten axes from Panakestor *εἰς ξύλοκοπίαν* in P. S. I. 506. All these are of the month Mesore (August). In a letter dated Pachon 14th (May) Maron writes to Zenon that the "wood-cutting and sesame-gathering and planting of kiki" have all been paid for, P. S. I. 500.

⁵ Rostovtzeff's understanding (*Large Estate*, p. 65) of the customary annual *ἐμπυρισμός* is incorrect. The *ξύλοκοπία* cannot mean eliminating stumps because there were few trees, only underbrush. The

cleaning and burning of the *πικρίς* in our document is done at the beginning of the agricultural year, when the higher ground is being irrigated, ditches fixed up, and the soil unfit for ploughing is being hoed. The wording is quite clear that these boys clean the *πικρίς* and burn something upon it. The object is equally clear—to treat alkaline soil in such a way as to cure, as far as possible, its toxic condition. We are dealing with an agricultural system in which the old empirical knowledge of Egyptian agriculture is fortified by the more scientific Hellenistic methods and knowledge of Theophrastus. From this point of view we venture the explanation that the salty deposits on the surface were being scraped away and some substance burned which had a tendency to counteract the alkaline condition. What this substance was, whether weeds or wood, we do not know¹.

The rate of pay in our document is 1 obol for heavy work, ditch-digging and hoeing (as restored by us); $\frac{2}{3}$ of an obol for men thinning out sesame plants and cleaning the "bitter" land, evidently regarded as lighter work; and $\frac{1}{2}$ of an obol for boys who clean and burn the "bitter" soil. These wages correspond to those of P. Lond. Inv. 2313, where the work is the lighter labour of a later part of the season. In this London papyrus men working in the olive groves and men cleaning the chick-peas and in the poppy fields are paid at the rate of $\frac{2}{3}$ of an obol, boys weeding in the wheat field and kiki field at $\frac{1}{2}$ of an obol. The impression given by these rates is that the work, which was all unskilled labour, was rewarded according to the physical strain involved. One obol was an average rate of pay for unskilled labour at that time². In P. S. I. 599 some weavers ask for $1\frac{1}{2}$ obols per diem for men, $\frac{1}{2}$ an obol for women, and an obol for an assistant³. Weaving, however, is skilled work.

The work recorded on the 23rd, of carrying the supply ditch into the high parts of the third enclosure, is paid for by an estimate of the amount of dirt thrown up by the entire gang in a day. Like "piece work" in the modern factory system, it is paid by quantity of work completed, 1 drachma for 15 *aiolia*, or 1 obol for $2\frac{1}{2}$ *aiolia*⁴. In Edgar, *Zenon Pap.* 23, the rate is 4 drachmas for 50 *aiolia*, or 1 obol for $2\frac{1}{4}$ *aiolia*. It has generally been assumed⁵ that $2\frac{1}{2}$ *aiolia* was a day's work, under normal conditions of the dirt to be thrown up. These conditions, of course, varied. In P. Petrie III, 43 verso, col. III, 4, a contractor made his calculations on the basis of 3 *aiolia* per man each day. Our document, therefore, gives definitely $\frac{2}{3}$ of an obol as a day's wage for lighter farm work; 1 obol for heavier farm work (if our restoration be correct); and 1 obol for throwing up $2\frac{1}{2}$ *aiolia* of dirt. If the accepted view is correct that $2\frac{1}{2}$ *aiolia* is an average day's work for digging⁶, we have here another proof of 1 obol as an average day's wage for unskilled labour.

ἐμπυρισμός τῆς περυσινῆς of P. S. I. 560 is the burning over of the stubble on the crop land of the season just ended. In combination, the *ξύλοκοπία καὶ ἐμπυρισμός* are nothing more than the process of cleaning up the land for the coming season which was a customary obligation assumed by the lessee of land in so many of our leases. A standardized phrase for it is *καὶ μετὰ τὸν χρόνον παραδώσει τὰς ἀρούρας καθαρὰς ἀπὸ θρόνου καλάμου δίσης πάσης* as in P. Tob. II, 375, 29–30.

¹ My friend, Professor E. Truog, professor of soils at the University of Wisconsin, informs me that tests are going on at the University of California, which indicate that ground limestone burned on alkaline soil is beneficial in treating an alkaline condition. He suggests that the Greco-Egyptian farm practice might have discovered that the ashes from weeds, or better, certain types of wood, were valuable in the treatment of alkaline soils. The ashes of wood are about one-half calcium carbonate. It seems too good to be true! Against this scepticism, however, one must place the fact that the crop rotation system of Egypt, as shown by the papyri, was thoroughly sound. (W. L. W.)

² ANGELO SEGRÉ, *Circolazione Monetaria*, pp. 112–113.

³ Cf. ROSTOVITZEV, *Large Estate*, p. 117.

⁴ P. Petrie III, 40, (b) col. i, p. 96. The rate is a drachma for ten *aiolia* approximately, or an obol for $1\frac{1}{2}$ *aiolia*.

⁵ P. Petrie III, Appendix, pp. 344–45, and SEGRÉ, *Circolazione Monetaria*, p. 113.

⁶ P. Petrie III, Appendix, pp. 344–45, and FR. OERTEL, *Die Liturgie*, p. 14.

ARITHMETIC IN THE MIDDLE KINGDOM

BY PROFESSOR T. ERIC PEET

IN the Cairo Museum, under the numbers 25367 and 25368, are two Egyptian writing-tablets of the usual type, made of wood and covered on both sides with a layer of polished plaster to take the writing. Each measures roughly 18 inches by 10, and each is inscribed in black ink in the hieratic script. The first tablet bears on one side the scanty remains of a letter and a list of servants, and on the other some mathematical calculations: the list is dated in the 28th year of a king whose name is not given. The second tablet bears on one side a list of twenty-seven servants, and some calculations which are continued on the other face. The style of the writing and the names of the servants fix the date of the tablets to the Middle Kingdom, about 2000—1800 B.C. They are said to have been found at Akhmim.

These two tablets were first published by Daressy¹ who supposed them to contain tables or examples of multiplications of whole numbers and fractions, more particularly the fractions $\frac{1}{2}$ and its powers $\frac{1}{4}$, $\frac{1}{8}$, and so on. This explanation was entirely erroneous, as will be seen in the sequel. Möller² was the first to observe that among the signs used in the calculations were the now well-known signs for the $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$ etc. of the *hekat* or bushel. But he failed to see the drift of the exercises, as is clear from his statement that in them these various parts of the *hekat* were multiplied by one another, a process as abhorrent to the Egyptian sense of units and dimensions as the multiplication of half-an-ounce by a quarter-of-a-pound would be to ours. Attention was called to Möller's error by Sethe³, but in a manner which leaves little doubt that this acute thinker had failed to see the exact import of the figures. Since that time no one, so far as I know, has occupied himself with the tablets. Rightly understood they form such an admirable commentary on Egyptian mathematical methods that they are well worthy of close study.

Their purpose may be explained in a few words. The Egyptian *hekat* or bushel, a measure of capacity used mainly for measuring grain, was for practical purposes divided by continuous halving, that is to say the parts used in everyday measurements and calculations were the $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$ and $\frac{1}{64}$. Anything smaller than $\frac{1}{64}$ was expressed in terms of a small measure called the *ro*, of which there were 320 in a bushel and consequently 5 in $\frac{1}{64}$ of a bushel, 10 in $\frac{1}{32}$, 20 in $\frac{1}{16}$, 40 in $\frac{1}{8}$, 80 in $\frac{1}{4}$ and 160 in $\frac{1}{2}$ bushel.

Having once fixed on these particular fractions of the bushel for practical use the Egyptians refused to employ any others. Thus they never spoke of one-seventh or one-third of a bushel, but reduced these to terms of the $\frac{1}{2}$, $\frac{1}{4}$ etc., down to $\frac{1}{64}$ th, and the small remainders, if any, to the *ro* and its fractions. We behave in a similar manner, for one-seventh of a ton conveys little to most of us until we have reduced it to hundredweights, quarters, pounds and ounces, these being the particular divisions of the ton which we

¹ *Rec. de Trav.*, xxviii, 62—72.

² *Zeitschr. f. äg. Spr.*, 48, 99.

³ *Sethe, Von Zahlen und Zahlworten*, 74, n. 2. The statement there made that on the tablets "the whole numbers stand for bushels" is not correct.

recognize as separate units. The Egyptian was, however, more methodical than we are, for each of his units was half the next above it, except the *ro*, which was one-fifth of the $\frac{1}{4}$ bushel. All these dimidiated parts, the $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$ etc., were just as much real units to him as our pound and ounce are to us: each probably had its special name, and the signs used to represent them were, in later times at least, identified each with a part of the picture of the magic eye of Horus.

The calculations on the tablets are nothing more than the expression of various fractions ($\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$) of the bushel in terms of the recognized divisions, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$ etc., and the *ro*. For example, one-eleventh of a bushel is shown to be equivalent to $(\frac{1}{16} + \frac{1}{4})$ bushel + $4\frac{1}{16}$ *ro*, and this was the only correct way of expressing one-eleventh of a bushel in Egyptian.

Before we can follow the working by which this result is reached a word concerning Egyptian multiplication and division is necessary. The Egyptian only multiplied directly by two figures, 2 and 10. The latter was obviously chosen because the numeral system was a decimal one, so that in order to multiply say 76 ($\overline{\text{nnnn}} \text{||||}$) by 10 all we need to do is to substitute hundred-signs for tens, and ten-signs for units, $\overline{\text{nnnn}} \overline{\text{nnnn}}$, 760. The figure 2 was chosen simply because it was the lowest digit after 1. All other multiplication was built up on this. To multiply by 3 you multiplied by 2 and added in the original number. To multiply 5 by 13 you did as follows:

$$\begin{array}{r} - 1 \times 5 = 5 \\ \quad 2 \times 5 = 10 \\ - 4 \times 5 = 20 \\ - 8 \times 5 = 40 \end{array}$$

You next observed that, of the multipliers on the left, 8, 4 and 1 add up to 13, so that to get 13 times 5 all that was necessary was to add the three products in the right-hand column corresponding to the multipliers 1, 4 and 8, *viz.* 40, 20 and 5. It was customary to place a tick against the multipliers so chosen, in order to assist the eye in picking out and adding the correct products on the right.

Division in Egyptian was merely a reversed form of multiplication, for the Egyptian instead of saying divide 77 by 7 said operate on 7 to find 77. Here again 2 and 10 were the only whole numbers used as multipliers.

$$\begin{array}{r} - 1 \times 7 = 7 \\ - 2 \times 7 = 14 \\ \quad 4 \times 7 = 28 \\ - 8 \times 7 = 56 \end{array}$$

We now observe that in the right-hand column the products 7, 14 and 56 add up to 77; we therefore tick off those lines and add the corresponding multipliers 1, 2 and 8, which give the correct 11.

We are now in a position to follow the working on the tablets. Let us take the example in which $\frac{1}{10}$ of a bushel is to be found. It is as follows:

$$\begin{array}{r} 1 \quad 10 \\ 10 \quad 100 \\ 20 \quad 200 \\ 2 \quad 20 \end{array}$$

1	$(\frac{1}{10} + \frac{1}{32})$ bushel + 2 ro
— 2	$(\frac{1}{5} + \frac{1}{16})$ " + 4 "
4	$(\frac{1}{2} + \frac{1}{8} + \frac{1}{64})$ bushel + 3 ro
— 8	$(\frac{1}{2} + \frac{1}{4} + \frac{1}{32} + \frac{1}{64})$ bushel + 1 ro

The first step (bottom of last page) consists in reducing one-tenth of a bushel to ro, and since a bushel contains 320 ro this is equivalent to dividing 320 by 10, i.e. multiplying 10 to find 320. In modern form the first four lines would read:

$$\begin{aligned} 1 \times 10 &= 10 \\ - 10 \times 10 &= 100 \\ - 20 \times 10 &= 200 \\ - 2 \times 10 &= 20 \end{aligned}$$

Looking down the column of products on the right we notice that $100 + 200 + 20$ gives the required 320 ro, and picking out the multipliers corresponding to these products we find them to be $10 + 20 + 2$. In an ordinary multiplication we should at once add these and get 32 ro, but that is not done here, for the 10 and 20 ro are precisely $\frac{1}{32}$ and $\frac{1}{16}$ of a bushel respectively, and enable us to give our answer in the required form $(\frac{1}{10} + \frac{1}{32})$ bushel + 2 ro.

This then is the correct way of expressing one-tenth of a bushel in Egyptian. It now remains to prove the answer. If this is $\frac{1}{10}$ of a bushel then ten times this amount should come to a bushel, and we now set out to multiply our answer by 10. This is done in the last four lines (top of this page). In view of what has been said above the multiplication needs little comment. Each multiplication is by 2. The dimidiated fractions of the bushel lend themselves admirably to this, for $\frac{1}{64}$ becomes $\frac{1}{32}$ and so on. Whenever the ro come to more than 5 (e.g. in multiplying 3 ro or 4 ro by 2) the 5 must be taken out and expressed as $\frac{1}{64}$ bushel and the remainder left as ro. The 8-line and the 2-line are ticked off, since 8 times + 2 times is 10 times, and the products on the right in these two lines will be found when added¹ to give exactly a bushel.

Slightly more complicated is the following sum, in which one-seventh of a bushel is worked out:

1	7
10	70
20	140
40	280
2	12 (error for 14)
4	24 (error for 28)
$\frac{1}{2}$	1
$\frac{1}{4} + \frac{1}{32}$	2
$\frac{1}{2} + \frac{1}{14}$	4
— 1	$(\frac{1}{8} + \frac{1}{64})$ bushel + $(1\frac{1}{2} + \frac{1}{14})^2$ ro
— 2	$(\frac{1}{4} + \frac{1}{32})$ " + $(1\frac{1}{4} + \frac{1}{2} + \frac{1}{32})$ ro
— 4	$(\frac{1}{2} + \frac{1}{16})$ " + $(2\frac{1}{2} + \frac{1}{4} + \frac{1}{14} + \frac{1}{32})^2$ ro

¹ The dimidiated fractions render such an addition very simple. The Egyptian doubtless did it in his head.

² Error for $(\frac{1}{2} + \frac{1}{14} + \frac{1}{14})$.

³ The $\frac{1}{32}$ is erroneously omitted.

The first step, comprising the first six lines, is the division of 320 *ro*, or one bushel, by 7. Note how the multipliers chosen, 10 *ro*, 20 *ro* etc., are such as can be directly expressed as dimidiated fractions of the bushel. Adding the products 7, 280 and 28, we get 315, and the multipliers corresponding are 1, 40 and 4 (ticks omitted), the sum of which, for a reason which will appear presently, we will write as 5 + 40. But 315 is 5 short of 320, and so we must still divide this 5 by 7, and add the result to our quotient 5 + 40. This is done in lines seven to nine. And here another vital point in Egyptian mathematics comes to the fore. The Egyptian never used, and had no notation for, fractions whose numerator was greater than 1, with the sole exception of $\frac{2}{3}$. Thus he could not say, as we should, that $5 \div 7$ was $\frac{5}{7}$. What he did was to multiply 7 to get 5, keeping his trial multipliers always in the form of fractions whose numerators were 1. If this step were conceivable in modern mathematics it would have to be set out as follows:

$$\begin{aligned} - \frac{1}{7} \times 7 &= 1 \\ (\frac{1}{7} + \frac{1}{28}) \times 7 &= 2 \\ - (\frac{1}{7} + \frac{1}{14}) \times 7 &= 4 \end{aligned}$$

Here it will be seen that each line is got from the last by doubling. But since the Egyptian may not use and has no notation for $\frac{2}{7}$ he is forced to break it up into the sum of two fractions which he can express, namely $(\frac{1}{7} + \frac{1}{28})$. This he did by reference to his tables: two sets of tables have actually survived in which the fractions whose numerators are 2 and whose denominators are the various odd numbers 3, 5, 7 etc. are split up each into the sum of two or more fractions whose numerators are unity¹. On doubling again the $(\frac{1}{7} + \frac{1}{28})$ obviously becomes $(\frac{1}{7} + \frac{1}{14})$, thus avoiding the use of the impossible $\frac{2}{7}$. The products on the right in the first and third lines now add up to the required 5, and the corresponding multipliers in these lines must when added give us the quotient when 5 is divided by 7. The result is $(\frac{1}{7} + \frac{1}{7} + \frac{1}{14})$, but the scribe has unfortunately written 1 instead of the $\frac{1}{2}$.

This number of *ro* must now be added on to the original quotient, which was (5 + 40) *ro*, or $(\frac{1}{64} + \frac{1}{8})$ bushel, and we get 320 *ro* divided by 7 = $(\frac{1}{8} + \frac{1}{64})$ bushel + $(\frac{1}{2} + \frac{1}{7} + \frac{1}{14})$ *ro*, which is our answer. Just as in the previous example this is now proved. If it is equivalent to $\frac{1}{7}$ of a bushel we should, if we multiply it by 7, get exactly a bushel. This is done in the last three lines, the multipliers being 1, 2 and 4. These added together give 7, and they are therefore ticked off and the products corresponding to them added and seen to give just a bushel.

In a precisely similar manner the scribe of our tablets has dealt with one-eleventh and one-thirteenth of a bushel. The former he reduces to the form $(\frac{1}{18} + \frac{1}{54})$ bushel + $4\frac{1}{11}$ *ro*, and the latter, after an unsuccessful first attempt, he finds quite correctly to be $\frac{1}{18}$ bushel + $(4\frac{1}{2} + \frac{1}{18} + \frac{1}{36})$ *ro*.

One-third of a bushel is found in quite a different manner, and it is precisely this fact which has misled students of the tablets. The working of this sum is as follows:

$$\begin{array}{r} 1 \quad \frac{1}{3} \\ 2 \quad \frac{2}{3} \\ 4 \quad 1\frac{1}{3} \end{array}$$

¹ One in the Rhind Math. Pap. and the other in the Kahun fragments.

(One-third of) $\frac{1}{84}$	bushel	=	$1\frac{2}{3}$	ro
"	$\frac{1}{42}$	"	=	$3\frac{1}{3}$ "
"	$\frac{1}{28}$	"	=	$\frac{1}{4}$ bushel + $1\frac{2}{3}$ ro
"	$\frac{1}{21}$	"	=	$\frac{1}{2}$ " + $3\frac{1}{3}$ "
"	$\frac{1}{16}$	"	=	$(\frac{1}{16} + \frac{1}{84})$ bushel + $1\frac{2}{3}$ ro
"	$\frac{1}{12}$	"	=	$(\frac{1}{8} + \frac{1}{24})$ " + $3\frac{1}{3}$ "
"	$\frac{1}{9}$	"	=	$(\frac{1}{4} + \frac{1}{16} + \frac{1}{84})$ " + $1\frac{2}{3}$ "
"	$\frac{1}{6}$	"	=	$(\frac{1}{2} + \frac{1}{6} + \frac{1}{12})$ " + $3\frac{1}{3}$ "

The procedure here is as follows. In the first three lines one-third of 5 ro is taken and found to amount to $1\frac{2}{3}$ ro. The Egyptian way of doing this is to multiply $\frac{1}{3}$ by 5, and in modern form these lines would read:

$$\begin{aligned} - 1 \times \frac{1}{3} &= \frac{1}{3} \\ 2 \times \frac{1}{3} &= \frac{2}{3} \\ - 4 \times \frac{1}{3} &= 1\frac{2}{3} \end{aligned}$$

The addition of lines one and three gives us the required 5 times $\frac{1}{3}$ is $1\frac{2}{3}$. Having obtained the equation $1\frac{2}{3}$ ro = one-third of 5 ro (or $\frac{1}{84}$ bushel) the rest is easy, for we have only to go on continuously doubling both sides until the one-third of $\frac{1}{84}$ bushel becomes one-third of 1 bushel. By this time the $1\frac{2}{3}$ ro has become $(\frac{1}{4} + \frac{1}{16} + \frac{1}{84})$ bushel + $1\frac{2}{3}$ ro, which is the answer. This is last of all proved by multiplying by 3, i.e. adding 2-times to 1-times, and showing by addition that the result is 1 bushel.

Why was one-third treated differently from the other fractions? Herein lies yet one more valuable lesson in Egyptian arithmetic. The Egyptian reckoner, although not too fond of fractions and forced to avoid all but those whose numerator was unity, was an expert in the use of one-third. Two-thirds was the only exception to his rule concerning numerators, and, strange as it may seem to us, he was capable of taking $\frac{2}{3}$ of a number in a single process, which is equivalent to saying that he used the $\frac{2}{3}$ -times table and probably knew it off by heart. Stranger still, he obtained one-third of a quantity not by dividing it by 3 but by halving two-thirds of it¹.

In the case before us he saw that no more formidable fractions than thirds of a ro would be involved, and no more complicated process than doubling them. Hence he abandoned the usual method of dividing 320 ro by 3 in favour of the more simple division or 5 ro by 3 followed by continuous doublings.

Truly might it be said that he who has closely studied these two tablets and understood them has little to learn concerning the elementary processes of Egyptian arithmetic.

¹ In this sum he might have found one-third of 5 ro in this way instead of multiplying $\frac{1}{3}$ by 5.

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A. PAPYRI (1921-1922)

By H. IDRIS BELL.

[I HAVE to thank Mr TOD, Mr NORMAN H. BAYNES and Mr W. H. BUCKLER for references, etc. As in previous years, I have not referred to articles in such works as Pauly-Wissowa-Kroll or to brief reviews which add nothing to the subject dealt with.]

1. LITERARY TEXTS.

[Omitting religious and magical works, for which see § 2.]

General. The principal literary item of the year is *P. Oxy.* xv, which appeared too late for notice in my last year's report. Like v, xi and xiii, it consists entirely of literary or theological texts, and it is a volume of considerable importance. The texts to which lovers of Greek poetry will turn first are 1787, which consists of numerous fragments of Sappho's 4th book, and 1788 and 1789, the former probably, the latter certainly fragments of Alcaeus; but unfortunately, numerous as these fragments are, they have not fitted together very well, and as they hardly ever contain an approximately complete line they serve rather to whet one's appetite than to satisfy it. Doubtless they will long furnish occupation to dealers in conjectural restoration, but restorations of Aeolic poetry have too rarely proved successful to be regarded as a satisfactory substitute for well-preserved texts. No. 1790 however gives us over 40 complete or almost complete lines of a poem which the editors, with great probability, identify as by Ibycus. They do not greatly add to the reputation of the poet, though they are not without merit, but they are from several points of view very interesting. The next two numbers are fragments of Pindaric Paean; the attribution and classification of the second and longer are however uncertain. Next (1793) we have some interesting fragments of the *Sonibii Victoria* of Callimachus, and then an epic fragment the situation in which recalls the same poet's *Heale* but which the editors attribute to "some less polished poet of the Alexandrian school." 1795 is a very noteworthy collection of acrostic epigrams resembling that in *P. Oxy.* 15; as in that papyrus, each epigram is followed by the words ἀλλ(ε) μοι, showing that they were intended to be sung to the flute. Several of these epigrams have a real charm. The new poetical texts conclude with part of an anonymous poem (1796), more interesting as a specimen of a *genre* than meritorious, on Egyptian plants or trees.

Of the new prose works the most interesting is one which the editors attribute to Antiphon Sophistes, *Περὶ Ἀληθείας*, already made known to us by *P. Oxy.* 1364. An anonymous work on Alexander the Great (1798), considerable fragments of a curiously miscellaneous collection of biographies (1800), and four different glossaries, each of them possessing an individual interest, are also worthy of note.

The fragments of extant works include portions of Sophocles, *Trachiniae* (1805; late 2nd cent.; one or two good readings), Theocritus, *Id.* xxii (1806; late 1st cent.; text not remarkable), Aratus, *Διοσχεπεία* (1807; 2nd cent.; good text), MSS. of Plato, Demosthenes and Isocrates, and two Latin MSS., valuable both palaeographically and for their contents. The first (1813) is from an early 6th-cent. MS. (in book form) of the Codex Theodosianus; the second (1814), from a MS. of the first edition of the Codex Justinianus, can with some confidence be dated between 529, the year in which this code was issued, and the publication of the second edition, six years later.

At the end of the volume are given a number of minor literary fragments, including six Homeric papyri. B. P. GRENFELL and A. S. HUNT, *The Oxyrhynchus Papyri*, Part xv. London, Egypt Exploration Society, 1922. Pp. x + 250. 5 plates. £2. 2s.

This volume has been reviewed by W. CRÖNERT (*Lit. Zentralbl.*, LXXIII, 1922, 398-400, 424-7; various suggestions for readings); S. GASHLEE (*Class. Rev.*, XXXVI, 1922, 176-7); P. MAAS (*Phil. Woch.*, XLII, 1922, 577-84); and A. CALDERINI (*La Perseveranza*, Milan, 1922, 29 March, and *Aegyptus*, III, 1922, 112-3).

An important review of *P. Oxy.* XIII, also purely literary, has been published in *Gött. gel. Anz.*, CLXXXIV

(1922), 87—99, by K. FR. W. SCHMIDT (many suggestions for readings, etc.); and Powell and Barber's *New Chapters* (see *J.E.A.*, VIII, 1922, 83) has been reviewed by A. C. PEARSON (*Class. Rev.*, XXXVI, 1922, 170—2), W. D. WOODHEAD (*Class. Phil.*, XVII, 1922, 370—1), A. C[ALDERINI] (*Aegyptus*, III, 1922, 111), and an anonymous reviewer (*Journ. Hell. Stud.*, XLII, 1922, 128—9).

H. J. M. MILNE, a colleague of the writer's at the British Museum, who is preparing a catalogue of all the Museum's literary papyri, has published, as a by-product of his work on this, a number of corrections to published literary texts, chiefly of the Petrie papyri. *Readings from Papyri*, in *Class. Rev.*, XXXVI (1922), 165—6.

Epic poetry. Under this head I have nothing Greek to chronicle, but E. A. LOWE has called attention to two fragments of Virgil, in both of which the Latin text is accompanied by a Greek translation. One is a vellum fragment in the Rainer collection, in early 6th-cent. uncial, containing *Aen.*, v, 673—4. It seems to be a school vocabulary; Lowe publishes only the text on the hair-side of this minute scrap. The other, of which Lowe gives two specimens, is a palimpsest, also from Egypt, containing, under an Arabic hagiographic text, *Aen.*, i, 588—94, in late 5th- or early 6th-cent. sloping uncials. *Two Fragments of Virgil with the Greek Translation*, in *Class. Rev.*, XXXVI (1922), 154—5.

Lyric poetry. A recent addition to the handy Loeb library is a volume (the first of three) of lyrics, edited and translated by J. M. EDMONDS. It contains the extant fragments of Terpander, Alcman, Sappho, Alcaeus, and other poets; and a commendable feature of it is that the editor gives the context of such fragments as are found in the works of ancient authors. Less to be commended is the very liberal use of conjectural restoration, which in places extends almost to the production of original verses into which the remains are fitted. It is doubtless a matter on which two opinions are possible, and over and above his critical notes Edmonds safeguards himself by marking in the text his more daring reconstructions; but on the whole it seems a mistake, in a series of this kind, intended rather for the educated reader of classical tastes than for the scholar, to indulge so largely in conjecture. *Littera scripta manet*; and despite all safeguards the volume may leave in many minds an erroneous impression of the condition of Sappho's text. The second volume is to include the poems of Bacchylides. This first volume is indexed separately. *Lyra Graeca*, vol. 1. *Loeb Class. Library*, Heinemann, London, 1922. Pp. xv+459. 10s. 6d.

Edmonds's work was very severely reviewed by E. LOBEL (*Class. Rev.*, XXXVI, 1922, 120—1), and this review evoked a reply from Edmonds (*Mr Lobel and Lyra Graeca: A Rejoinder*, in *Class. Rev.*, XXXVI, 159—61). This contained the substance of a paper read by Edmonds at a meeting of the Cambridge Philological Society on 26 Oct., 1922; but the portion relating to the Aeolic dialect was abridged, and of this a fuller account will be found in the *Cambridge University Reporter*, 7 Nov., 1922.

In the paper just referred to, as reported in the *Cambr. Univ. Rep.*, Edmonds also communicated an emendation of Alcman's *Partheneion*.

A translation of the fragments of Alcaeus and Sappho by P. PASELLA referred to in *Aegyptus* (III, 1922, 123, no. 2081) is inaccessible to me. *I frammenti di Alceo e Saffo tradotti*. Roma, Palotta, n. d. Pp. 30. The edition of Sappho by M. L. GIARTOSIO DE COURTEN (*J.E.A.*, VIII, 1922, 84) has been reviewed by D. BASSI (*Riv. di Fil.*, I, 1922, 102—4), B. LAVAGNINI (*Boll. di Fil. Class.*, XXVIII, 1921—2, 177—8), A. CERNEZZI-MORETTI (*Lycium di Milano*, IV, 1922, 11—3; not seen by me; cf. *Aegyptus*, III, 123, no. 2080), and F. GABRIELI (*Giorn. d'Italia*, 23 Mar., 1922; *ibid.*). G. PESENTI reprints the text of *P. Oxy.* 1231, 1 with a new attempt at a restoration, notes, and an Italian translation. *Sapphica Musa*, in *Aegyptus*, III (1922), 49—54. For the sake of completeness, though the poem dealt with is not one of those recovered from papyri, I may refer to a paper by J. M. EDMONDS on the epitaph on Timas attributed in the Anthology to Sappho. *Sappho and Timas: a Footnote to the History of Greek Poetry*, in *Proc. of Class. Assoc.*, XVIII (1921), 150—65.

E. LOBEL, to whose learning and acuteness the texts of Sappho and Alcaeus already owe much, has made two further discoveries of great interest. In *P. Oxy.* xv, 1789, fr. 29 he has recognized at least one and very likely three known fragments of Alcaeus. He adds some interesting notes. Secondly, in *P. Oxy.* xv, 1787, fr. 8, attributed to Sappho, he finds, with great probability, a fragment of Pindar which in some MSS. follows the 8th Isthmian. *Two Fragments of Papyrus*, in *Bodleian Quarterly Record*, III, 289—90. G. VITALE has published a short article on the new Ibycus fragment (*P. Oxy.* 1790; see above). He gives the text, with notes and a translation, and adds a general discussion of the poem. *Ibycus torna*, in *Aegyptus*, III (1922), 133—9. F. R[IBEZZO] makes a suggestion for reconstituting the text of a passage in Pindar's sixth Paean. *Ad Pind. Paean.* VI, 105—109, in *Riv. Indo-Greco-Italica*, v (1921), 240. Festa's edition of

Bacchylides (*J.E.A.*, vi, 1920, 123) is reviewed in *Rev. belge*, 1922, 120-2 (not yet accessible to me; see *Aegyptus*, iii, 1922, no. 2052). D. ARFELLI has published a translation of the "Theseus" (Ode 18 or 17) of the same poet. *Il "Teseo" di Bacchilide*, in *Atene e Roma*, 1921, 258-60 (*ibid.*, no. 2051).

Elegiacs, Epigrams, etc. The period reviewed has been a noteworthy one for the study of Callimachus. The series of classical texts which is doing for French readers what the Loeb Library does for English, the *Collection des Universités de France*, has been increased by an edition of this poet, edited by É. CAHEN. At present only the first volume, containing the text, has appeared; the second, with translations, is to follow later. The papyrus fragments are for the most part included, but the collection is not absolutely complete. There is an Index Nominum. *Callimaque*, Soc. d'Éd. "Les Belles Lettres," 1922, [Paris]. Pp. 195. This volume has been reviewed by P. ROUSSEL (*Rev. ét. anc.*, xxiv, 1922, 272).

R. PFEIFFER has edited for the invaluable series of *Kleine Texte* the recently recovered fragments of Callimachus. The volume is not merely a handy collection of all recent additions (chiefly of course from papyri) to the poet's works but a real contribution to the text, for the editor incorporates new readings of the Geneva vellum fragment and others and makes various conjectures and restorations. *Callimachi Fragmenta nuper Reperta* (*Kleine Texte*, no. 145). Bonn, A. Marcus und E. Weber, 1921. Pp. 94. Pfeiffer has also published a volume of *Kallimachosstudien*, which I have not at present been able to see. The former volume is reviewed by A. TACCONE (*Boll. di Fil. Class.*, xxviii, 1921-2, 201-2), P. ROUSSEL (*Rev. ét. anc.*, xxiv, 1922, 270-1), É. CAHEN (*Rev. ét. gr.*, xxxiv, 1921, 470-2), and an anonymous reviewer (*Journ. Hell. Stud.*, xlii, 1922, 129); the latter by L. CASTIGLIONE (*Boll. di Fil. Class.*, xxix, 1922-3, 6-7) and P. ROUSSEL (*Rev. ét. anc.*, xxiv, 1922, 271-2). C. C. EDGAR has made a brilliant and most convincing contribution to the interpretation of Callimachus's 25th epigram. The Heros there referred to is, he holds, the rider-god of Thrace; but why is he on foot? Because, says Edgar, Eetion had already an *ἐπιστάθμος*, a *ἱππεύς*, quartered on him; he "will not admit a new lodger into his house unless he comes on foot." Callimachus's joke thus receives a point not discovered before. In the same article Edgar has a note on a graffito from the Tomb of Petosiris published by Lefebvre. It is, he says, a jest on some bad verses; indeed the whole was perhaps a jeu d'esprit by "a party of idle wits." *A Note on Two Greek Epigrams*, in *Ann. du Service*, xxii, 78-80.

Drama. I know only from a review by G. ITALIE (*Museum*, Leyden, xxix, 1921-22, 155-7) a work by W. MOREL on the *Hypsipyle* of Euripides. *De Euripidis Hypsipyla*. Lipsiae, Noske, 1921. (*Diss. Inauguralis*.) Equally inaccessible is an article, unfortunately in Czech, on the same play, by J. LUDVÍKOVSKÝ, in *Listy filologické*, xlii (1919), 129-40, 277-80.

Menander as usual figures largely in the year's work. The editions by Sudhaus and Leeuwens are reviewed by W. RENNIE (*Class. Rev.*, xxxvi, 1922, 79-81; laudatory, but with criticisms of detail) and that of Allinson in the Loeb Library by T. W. LUMB (*Class. Rev.*, xxxvi, 123). U. VON WILAMOWITZ-MOELLENDORFF, in a note on the *Epitrepontes*, makes suggestions as to the plot, with special reference to Acts i and iv. *Menanders Epitrepontes* (4 of his *Zur griech. Gesch. u. Lit.*), in *Sitzber. Pr. Akad.*, 1921, xlii-xliv, 741-6. G. JACHMANN has published notes and suggestions for reconstruction on the *Heros* and *Epitrepontes* (*Zu Menanders Heros und Epitrepontes*, in *Hermes*, lvii, 1922, 107-18); and a translation of the latter play by A. KÖRTE, with completion by FR. VON OPPEL-BRONIKOWSKI, is reviewed by J. GEFFCKEN (*Deutsche Lit.-Z.*, xlii, 1921, 235-6). The work itself is inaccessible to me. *Menandros, das Schiedsgericht*. Leipzig, Insel-Verlag, 1920. 8°. Pp. 47. G. COPPOLA has published an article on P. S. I. 126, a revised text of which he gives, with translation and commentary. He holds to the Menandrian authorship, and suggests that the play is the *Ἀβρίων Περθάν*. *I frammenti comici del Pap. 126 Soc. Ital.*, in *Riv. Indo-Greco-Italica*, vi (1922), 35-48. S. ROBERTSON believes he can recognize in the well-known *ῥῆσις* of the Didot papyrus (published by H. Weil in 1879; Nauck, *frag. incert.* 953 of Euripides) part of Pamphile's reply to her father in the *Epitrepontes*. *An unrecognized extract from Menander's Epitrepontes?* in *Class. Rev.*, xxxvi (1922), 106-9. S. GASELKE, in a review of CRUIN's *Short Texts*, points out that LOBEL has identified no. 403 as Menander, *Monost.* 371. *Class. Rev.*, xxxvi, 138-9.

For the study of Herodas the year has been (one may almost say) epoch-making, for it has been marked by the appearance of W. HEADLAM's long-expected edition of the Mimes and fragments. This edition, at which Headlam had long been working, was interrupted by his death, and his papers were entrusted for completion to A. D. KNOX. The completed volume is thus a composite one. The bulk of the elucidatory work on Mimes i to vi is due to Headlam, though occasional contributions have been made by Knox; that on Mime vii is in part, and that on viii and the fragments mainly, by the latter, who is also responsible, throughout, for text, translation, critical notes and indices, besides making additions to the introduction

and appending a valuable section on the evidence to be obtained from the errors of the MS. as to the character of its archetype. Specially to be mentioned is the work which Knox has done on the unidentified or doubtfully identified fragments of the roll, all but one of which have now been placed, in many cases with complete or approximate certainty. They belong largely to Mime VIII, the text of which is now much fuller than it has been in any previous edition.

This edition, whatever contributions to the subject may be made by other scholars (and I mention below two articles which correct or supplement the commentary of the editors), is likely to hold the field for many years to come, and indeed will probably be the basis of all subsequent work on the author. The erudition shown is almost overwhelming, and the volume is a perfect mine of information on all sorts of subjects. There is room for criticism here and there—it is, for example, strange that the excellent introduction includes no detailed palaeographical description of the MS., and that no bibliography is given; but the work of man which is exempt from criticism has yet to be found. *Herodas: The Mimes and Fragments*. Cambridge, University Press, 1922. Pp. lxiv+465. 1 Plate.

The volume has been reviewed by V. R. (*New Statesman*, July 8, 1922, 391-2). A. E. HOUSMAN has pointed out an error of the editors in the interpretation of the word *τῆμα* (II, 69), which causes them to miss completely a particularly audacious joke. *Herodas*, II, 65-71, in *Class. Rev.*, XXXVI (1922), 109-10. H. J. ROSE in a recent article has made some further contributions to the interpretation of the author; his notes are concerned with religious allusions, a subject on which he says that the edition "is perhaps hardly adequate." *Quaestiones Herodaeae*, in *Class. Quart.*, XVII (1923), 32-4.

An edition by P. GROENEBOOM of the first six mimes of Herodas is not at present accessible to me. *Les Mimiambes d'Herodas*, I-VI. Groningen, P. Noordhoff, 1922. Pp. 196. F. 250. Groeneboom has also published some miscellaneous notes on the subject (*Ad Herodam*) in *Mnemosyne* (N.S., XV, 1922, 50-61).

Music. R. WAGNER's work on the Berlin musical papyrus (*J.E.A.*, VIII, 1922, 86) has been reviewed by O. SCHROEDER (*Phil. Woch.*, XLII, 1922, 321-2; laudatory). On the subject of music see also below, § 2, the notice of *P. Oxy.* XV.

Historical writers. Kenyon's new edition of Aristotle's *Athenaion Politeia* is reviewed by J. VAN LEEUWEN JR. (*Museum*, Leyden, XXIX, 1921-22, 200-13) and by D. BASSI (*Riv. di Fil.*, XLIX, 1921, 489-90). G. VOLLGRAFF publishes various notes on this work (*Ad Aristotelis Librum de Republica Atheniensium*, in *Mnemosyne*, N.S., XV, 1922, 169-83, 293-9), and P. N. URE attempts to show reasons for accepting the general accuracy of Aristotle (*Ath. Pol.* 25) in ascribing to Themistocles an important part in the attack on the Areopagus (*When was Themistocles last in Athens?* in *Journ. Hell. Stud.*, XLI, 1921, 165-78). H. HOMMEL reviews (*Phil. Woch.*, XLII, 1922, 721-30) G. COLIN's article on the last seven chapters of the work (*J.E.A.*, VI, 1920, 126).

An article on *P. Oxy.* XV, 1800 (see above), by A. CORDERINI (qu. Calderini ?) is inaccessible to me. *Di un nuovo testo biografico nei papiri di Ossirinco* (*P. Oxy.* XV, 1800), *Rend. Ist. Lomb.*, LV, 27 March, 1922; see *Aegyptus*, III, 248, no. 2307.

Orators. Under this head I have but one entry, an article on Hyperides in which O. J. SCHRÖDER, supplementing Jensen's edition of the orations, makes various contributions to the criticism and reconstruction of the text. *Beiträge zur Wiederherstellung des Hyperides-Textes*, in *Hermes*, LVII (1922), 450-64.

Philosophy. D. BASSI publishes an article on *P. Herc. ined.* 1017, a papyrus of which only a miserable wreck now remains. Very little can be read, but from some fragments which he has managed to decipher and here publishes he thinks it is perhaps a work of Philodemus *Περὶ ὕβριος*. But this is, he adds, "una semplice ipotesi, e nulla più." *Φιλοδήμων περὶ ὕβριος* ! in *Riv. Indo-Greco-Italica*, V (1921), 146. W. NESTLE has reviewed Philippon's article on Philodemus's *Περὶ εἰσαγγελίας* (*J.E.A.*, VII, 1921, 90) in the *Phil. Woch.* (XLII, 1922, 1161-2); and K. FR. W. SCHMIDT has published a review, with many suggestions for readings, etc., of the series *Herc. vol. quae supersunt coll.* III (see *J.E.A.*, III, 1916, 131) in the *Gött. gel. Anz.*, 1922, 1-26.

Science and Medicine. The first work in papyrology of H. J. M. MILNE, whose corrections of various literary papyri were referred to above, was an edition of an interesting recent acquisition of the British Museum, a papyrus containing a well-preserved column, with traces of a second, of a work which he identifies, with great probability, as the *Περὶ ζώων* of Theophrastus. The hand of this papyrus resembles that of the great Bacchylides papyrus, and since it can probably be dated, on external grounds, to about the end of the 1st century B.C., it furnishes evidence towards the settlement of the controversy as to the date of that papyrus. *A New Fragment of Theophrastus*, in *Class. Rev.*, XXXVI (1922), 66-7.

M. WELLMANN discusses the authorship of the long medical papyrus (P. Lond. 137) in the British Museum, which was edited by Diels. He thinks it is a fragment of the *Εἰσαγωγή* of Soranus of Ephesus. *Der Verfasser des Anonymus Londinensis*, in *Hermes*, LVII (1922), 396—429.

Romances. I referred last year (*J.E.A.*, VIII, 88) to B. LAVAGNINI's work on the origins of the Greek romance (*Le origini del romanzo greco*, Pisa, F. Mariotti, 1921. Pp. 104), which I am still unable to see. It is reviewed by H. E. BUTLER (*Class. Rev.*, XXXVI, 1922, 192-3) and A. HAUSRATH (*Phil. Woch.*, XLII, 1922, 697-9). Lavagnini has also published, in the Teubner series, a collection of the fragments of romances recovered from papyri (*Eroticorum fragmenta papyracea*, Teubner, 1922) which I have been unable to see. M. NORRIS replies to his article (see *J.E.A.*, VIII, 1922, 87-8) on the text published by her in *Aegyptus*, which she took as scholia and he regarded as a romance. She rejects his theory, owing to the form of the text, and shows that several of his proposed readings are impossible. She is inclined, however, to think that my own suggestion that it is a paraphrase or series of extracts may perhaps be right. She republishes the text in an improved form. *Da un papiro della Società italiana. Scolii a testi non noti?* in *Studi ital. di Fil. class.*, N.S., II (1922), 202-8.

Literary history and criticism. G. VITELLI has called attention to the discovery by WILANOWITZ-MOELLENDORFF that PSI. 724, described as scholia on an unknown poetical text, contains scholia on Lycophron, *Alex.*, 743 ff. He reprints the text with improvements rendered possible by this discovery. PSI. 724, in *Aegyptus*, III (1922), 141-2. A. HUMPHERS, without knowing of this discovery, pointed out that II. 9-10 are *Odyssey*, xii, 432 f., but did not recognize that the scholia as a whole refer to Lycophron (*Aegyptus*, III, 223).

2. RELIGION AND MAGIC.

(Including texts.)

TH. HOPFNER, whose monumental work on magic I noticed last year (*J.E.A.*, VIII, 90), is responsible for the second fasciculus of C. Clemen's valuable *Fontes Historiae Religionum*. This is a collection of the Greek and Latin sources for the Egyptian religion; at present only the first part is published, which includes the writers from Homer to Diodorus, those from Horace to Plutarch being reserved for Part II. The utility of such a compilation is obvious, and the work when completed will be of immense advantage to all students of Egyptian religion. *Fontes Historiae Religionis Aegyptiacae*, Pars I. Bonnae, A. Marcus und E. Weber, 1922. Pp. 146.

FR. PREISIGKE, whose *Vom göttlichen Fluidum* I noticed in *J.E.A.*, VII (p. 96 f.), has supplemented that volume, which dealt mainly with pagan religious ideas, by a similar one, applying his theory to Christian beliefs. As before, his arguments are ingenious and sometimes not without force, but I confess myself, once more, unconvinced as to the correctness of his main contention. In most at least of the cases on which he relies the transmission of the *Gotteskraft* in a material form is not established, and some of his interpretations, e.g. that of *σφραγίς* (p. 26), seem to me strained and unnatural. *Die Gotteskraft der frühchristlichen Zeit*. (Papyrusinstitut Heidelberg, Schrift 6.) Berlin u. Leipzig, Verein. wiss. Verleger, 1922. Pp. 40. Mk. 40.

The volume of Gurob papyri edited by SMYLY which I notice below (§ 3) contains, as no. 1, a text of quite unusual interest, though its value is somewhat diminished by its imperfection. It is a fragment of a liturgical text which Smyly seems to be right in recognizing as Orphic. Smyly's commentary on it has since been supplemented by M. TIERNEY in an article, in which he reproduces the text and makes many suggestions both for readings and interpretations, including some by DIELS and WILCKEN. He holds that the ritual is certainly Orphic but contains various extraneous elements, in particular some derived from the cult of Zagreus. It is, he thinks, an instruction for initiation at a mystery, the central part of which consisted of a double sacrifice. This sacrifice was partly sacramental, the god being killed by his worshippers and then reborn, and partly piacular, an atonement and peace-offering. *A New Ritual of the Orphic Mysteries*, in *Class. Quart.*, XVI (1922), 77-87.

G. MÉAUTIS, whose work on Hermopolis was noticed by me in vol. VII (p. 95) of this *Journal*, has published an interesting volume of Pythagorean studies. It is not a comprehensive treatise on the whole subject but, as the title implies, a series of articles on particular aspects of it, with special reference to neo-Pythagorism, and laying chief stress on its religious and mystical elements. It is of course not directly connected with papyrology, but it will be useful to such students of papyri as desire light on the mental atmosphere of the Graeco-Roman period, and the third chapter, on Pythagorism in Plutarch's *De Iside et Osiride*, has a more immediate interest for Egyptologists. *Recherches sur le pythagorisme* (*Recueil de travaux*

publiée par la Faculté des Lettres, Univ. de Neuchâtel, 9ème fasc.). Neuchâtel, Secr. de l'Université, 1922. Pp. 105. Reference may also be made (though here the connexion with our studies is remote) to an article on Pythagorism by F. M. CORNFORD (*Mysticism and Science in the Pythagorean tradition*, in *Class. Quart.*, xvi, 1922, 137-50, xvii, 1923, 1-12).

Another important work, with a real interest not only for the student of the Empire generally but also for the Egyptologist, is a German translation of the so-called *De Mysteriis* of Iamblichus by TH. HOFFNER. Though published by a theosophical firm, this work is written from a purely scientific standpoint, by a scholar whose competence for the task is sufficiently shown by the volumes referred to above. It is not a mere translation but is furnished with a valuable introduction and a somewhat elaborate commentary. *Über die Geheimlehren von Iamblichus (Quellenschriften der griechischen Mystik, Band 1)*. Leipzig, Theosophisches Verlagshaus, 1922. Pp. xxiv+278.

Weinreich's *Neue Urkunden zur Sarapisreligion* (see *J.E.A.*, vi, 1920, 121) is reviewed by E. FEHRLE (*Phil. Woch.*, xlii, 1922, 968-9), and Sethe's *Bisher unbeachtetes Dokument* (see *J.E.A.*, viii, 1922, 88) by W. VON BISSING (*Phil. Woch.*, xlii, 1922, 13-14), who concludes that the writer entered into the *κατοχή* because of a voluntary oath but owing to the persecution of the officials could not leave it again till an accusation against him (false according to him) was disposed of.

Groningen's monograph on the important invocation to Isis, *P. Oxy.* 1380 (see *J.E.A.*, viii, 89) has been reviewed by S. G[ASSELEE] (*Class. Rev.*, xxxvi, 1922, 139-40), R. MIRDÉMA (*Museum, Leyden*, xxx, 1922-3, 6-7), and O. WEINREICH (*Phil. Woch.*, xlii, 1922, 793-801). An article, in Czech, apparently on this papyrus, is inaccessible to me. The author is A. SALAČ; the title of the article is unknown to me. *Listy filologické*, xlii (1919), 169 ff. (given to me as on "*P. Oxy.* xi, 1830"; I presume 1380 is meant).

W. SPIEGELBERG, discussing a well-known amulet in the British Museum, concludes that of the three gods which there occur that on the right is Hathor, *Ἀχὼρι*=*achōri* ("snake") is perhaps Buto, and Bait at the top=the hawk=Horus. He adds some notes on the epigram. *Der Gott Bait in dem Trinitäts-Amulett des Britischen Museums*, in *Arch. f. Religionsw.*, xxi (1922), 225-7.

The same scholar, in an article in the same number (p. 228), rejects Schubart's distinction (*Äg. Z.*, lvi, 93) of *παιδοφόροι* and *λεπείς* as respectively priests who carried shrines, etc., and priests who carried gods in their arms. The latter category rests on inference from the Canopus inscription, but the context there shows, he says, that the practice was exceptional. Berenice died in childhood, and therefore belonged to the "child gods." Only the child gods were carried in the arms, and it was as child god that Berenice was so carried. *Ägyptische Kindergötter*.

I. M. BOLKOV, in a Russian article, for my knowledge of which I am indebted to the kindness of Mr Baynes, has discussed the god Sebek, using papyrological evidence. *Očerki iz istorii egipetskoi Religii* (*Sketches from the History of Egyptian Religion*), in *Khristianskoe Otnenie*, 1915, Oct.-Nov., 1361-87.

I. LÉVY discusses two rather puzzling divinities known in extra-Egyptian texts. The first is the goddess variously known to the Greeks as *Ἀλφειά* or *Δικαιοσύνη* or *Δίκη ἀκίφαλος*. He identifies her with *Mēt* (*Mēt*) or *Mētj* (dual), early confounded with Isis and Nephthys. She, he holds, is the *מֵת* of the Carpentras inscription, i.e. *Neme'ti*=*"les Deux-Mēt"*. She was equated with *Néme'sis*, a divinity sometimes found in the plural, *Néme'seis*. Secondly he deals with *Sasm*, known only as an element in certain names in Semitic inscriptions. Him he takes as the Egyptian *Sām*, the older *Sāmw*. *Divinités égyptiennes chez les Grecs et les Sémites*, in *Cinquant. de l'éc. prat. des hautes études*, 1921, 271-88.

Turning now to Christian literature, I may mention first the theological texts in *P. Oxy.* xv (see above, § 1). The most important of these is the first (1778), which is a small fragment of the *Apology* of Aristides, part of a leaf from a fourth-century papyrus codex. Small as it is, it has a very great value as the first MS. yet discovered which gives us a portion of the original Greek text. It will be remembered that the work is known to us from (1) a complete Syriac and a portion of an Armenian version, (2) the abridged Greek text embedded in the romance of *Barlaam and Josephat*. There had been some controversy on the question whether the Syriac or the Greek text gives us the truer representation of the original, Rendel Harris upholding the claims of the former, Armitage Robinson and Harnack those of the latter. The new discovery does not perhaps in itself completely settle the matter; but while it shows that the Syriac translator was verbose and inexact it does on the other hand prove that the Greek of *Barlaam and Josephat* is abridged, and that matter peculiar to the Syriac must not be ruled out as an interpolation. I may mention here that a complete leaf of a fourth-century codex of the Greek original was last year acquired by the British Museum. This very important MS., which is being edited by H. J. M. MILNE, agrees in its evidence

on the whole with that of *P. Oxy.* 1778, and serves yet more strongly to raise the credit of the Syriac version, though it once again illustrates its verbosity.

Of the other texts the most interesting are 1781, a leaf from the same very early (3rd cent.) papyrus codex of St John's Gospel as *P. Oxy.* 208 (= *P. Lond.* 782); 1782, the first MS. yet found in Egypt of the *Didache* (2 small vellum leaves; late 4th cent.; some noteworthy readings); 1783, part of a vellum leaf of the *Shepherd of Hermas* (early 4th cent.); 1784, Constantinopolitan Creed (5th cent.); and 1786, perhaps the most remarkable of all, a Christian hymn with musical notation. This is contained on a papyrus of the late third century, and is thus "by far the most ancient piece of Church music extant." The music is transcribed in modern notation by H. STUART JONES. I may mention here that the *Wadi Sarga* volume noticed below (§ 3, p. 103 f.) contains several Biblical texts. Those in Greek are: *John* 2. 1; 1 *Cor.*, portions of chapters 12 and 14 (5th cent.); *Rev.* 2. 12-13, 15. 8-16. 2 (7th cent.).

Very belatedly, I have now to refer to a Psalter fragment (from a codex of, probably, the seventh century) published as long ago as 1914 by H. LIETZMANN. The text is that of the Hexapla of Origen. *Ein Psalterfragment der Jenaer Papyrussammlung*, in *Neutestamentliche Studien Georg Heinrichs*... dargebracht (Leipzig, J. C. Hinrichs, 1914), pp. 60-5. 1 Plate.

The *Logia* continue to attract a good deal of attention. V. BARTLET, in a rather elaborate article maintains that we have in both sets of Sayings, and also in *P. Oxy.* 655 and in citations in 2 *Clement* and elsewhere, parts of the Alexandrian "Gospel of the Twelve" (to use Origen's title). *The Oxyrhynchus "Sayings of Jesus" in a New Light*, in *The Expositor*, 8 S., 134 (1922), 136-59. Evelyn White's edition of the Sayings has been reviewed by V. BARTLET (*Journ. Theol. Stud.*, XXIII, 1921-2, 293-300; critical; agrees on some points but not on others, especially as to White's view that they are from the Gospel according to the Hebrews; the volume gives "an excellent collection of materials for forming a judgement on the contents of the Sayings in advance of that otherwise within reach of most of us"), R. REITZENSTEIN (*Gött. gel. Anz.*, 1921, 166-74; long and important; differs strongly from W. on many points), and D. B. CAFELLE (*Rev. bénéd.*, XXXIII, 1921, 80-1; very laudatory). Lastly, M. J. LAGRANGE contributes yet another to the innumerable attempts to restore Saying 2 of *P. Oxy.* 654. He regards Schubart's recent restoration (see *J.E.A.*, VIII, 1922, 90) as a retrograde step. He accepts 'Ι[σ]ίδας from Evelyn White at the beginning. He gives two alternative restorations; but though either may be on the right lines, neither is convincing in detail. *La seconde parole d'Oxyrhynque*, in *Revue Biblique*, XXXI (1922), 428-33.

G. EDMUNDSON, discussing the date of the *Shepherd of Hermas*, argues for the period of the Flavian Emperors. *The Date of the Shepherd of Hermas*, in *The Expositor*, 8 S., 141 (1922), 161-76.

I referred in *J.E.A.*, VI (1920), 128, to a re-edition by Scherman of two early Christian prayers. The original edition, which was then inaccessible to me but which I have now been able to see, was by C. SCHMIDT, *Zwei altchristliche Gebete*, in *Neut. Studien* (see above), pp. 66-78. 2 Plates.

A. STEINWENTER has followed up his article on the gifts of children to monasteries by a note in which he shows, on the ground of evidence supplied him by CRUM, that a true *oblato puerorum*, in the western sense, by which the children became monks or nuns, as against the enslavement which was the usual practice, was known in Egypt. But even here the tendency was to regard the children as at least a "Wertgegenstand..., den man in Geld abschätzen und verkaufen könne." *Zu den koptischen Kinderoblationen*, in *Z. Sav.-St.*, XLIII (Kan. Abt.), 385-6.

Under the head of magic and demonology I have not very much to chronicle. Hopfner's volume on magic (see *J.E.A.*, VIII, 1922, 90) has been reviewed by W. SCOTT (*J.E.A.*, VIII, 111-6). S. EITREM and A. FRIDRICHSEN have published a Christian amulet which furnishes a parallel to *P. Oxy.* VII, 1060. *Ein christliches Amulett auf Papyrus*. Christiania, J. Dybwad, 1921. Pp. 32. (From *Videnakapselskapets Forhandlinger*.) Eitrem later reproduced the text, with some notes and conjectures. *A new Christian Amulet*, in *Aegyptus*, III (1922), 66-7. The original edition has been reviewed by H. LIETZMANN (*Z. f. d. neut. Wiss.*, XXI, 1922, 79), P. THOMSEN (*Phil. Woch.*, XLII, 1922, 1047), and LOHMEYER (*Theol. Lit.-Zeitung*, XLVII, 1922, 401). I may mention here that there is at Christiania a long and important magical papyrus, of which, with others, Eitrem is at present preparing an edition.

P. PERDRIZET has published a small volume in which, starting with a plaque published by Daressy, which represents a mounted saint piercing a she-devil, he discusses such objects in general and the conceptions underlying them, especially the demon Gyllou, the seal of Solomon, the Pentalfa, etc. *Negotium Perambulans in Tenebris: Études de Démonologie gréco-orientale*. (Publ. de la Fac. des Lettres de l'Univ. de Strasbourg, Fasc. 6.) Strasbourg-Paris, Librairie Istra, 1922. Pp. 38. Fr. 3.

A. JACOBY collects various ancient and later (Coptic, Greek, Chinese, etc.) passages on dog-headed demons. *Der hundköpfige Dämon der Unterwelt*, in *Arch. f. Religionsw.*, xxi (1922), 219-25.

3. PUBLICATIONS OF NON-LITERARY TEXTS¹.

The most important publication of the year is without doubt the first part of U. WILCKEN's long and eagerly expected *UPZ*. Undertaken as long ago as 1887, enlarged with a view to the inclusion of later-published papyri, then again restricted as the appearance of ever new Ptolemaic texts, edited, in the light of increased knowledge, with a greater approach to finality than was possible in earlier editions, made the idea of a corpus of all such texts impracticable, delayed by the pressure of other work, the project has experienced many vicissitudes; and finally the war with its disastrous economic consequences made the very possibility of publication for a time doubtful. Fortunately all difficulties have been surmounted, and the monumental work has at last begun to appear, it is true in a somewhat less elaborate form than was intended. All papyrologists will unite in hearty congratulations to the veteran editor and will rejoice to have at their disposal such stores of learning as he here offers them. The work is to consist when complete of two volumes, of which the first will contain the papyri from Lower Egypt (Memphis) and the second those from Upper Egypt (chiefly Thebes). In both cases only texts published before the appearance of the Petrie papyri are included. That it has been necessary to omit the Petrie texts is matter for profound regret, since the existing edition of those papyri is arranged in such a way as to be extremely inconvenient to use; but one can well understand that a re-edition of them would have so enlarged the scope of the work as to delay indefinitely its appearance, and we must be grateful for what Wilcken has given us. This first part is largely occupied with introductory matter, in which, after sketching the history of the study, Wilcken discusses first the Serapeum of Memphis and second the subjects of the Serapeum papyri (Artemisia, the recluses of the Serapeum, etc.). In all, 11 texts are published in this part, with elaborate commentaries. To praise Wilcken's work would be impertinence in me; I can only express the earnest hope that the great undertaking may be carried through to a successful and an early conclusion. *Urkunden der Ptolemäerzeit (Ältere Funde)*. I. Band, I. Lieferung. Berlin und Leipzig, Verein. wiss. Verleger, 1922. Pp. v+146.

Another volume of Ptolemaic texts is one edited by J. G. SMYLY. This, which may be regarded as a supplement to the Petrie papyri, contains 29 texts got from cartonnage of the third century B.C., which was found at Gurob. The first has already been referred to in § 2 (p. 100); the others are documents. No. 2 is a large part of a second copy of *P. Petrie III*, 21 (g), to which Smyly adds a valuable introduction and a translation. The others include letters, accounts, etc., and though none of them is of outstanding value, they contain many points of interest. *Greek Papyri from Gurob* (Royal Irish Academy, *Cunningham Memoirs*, xii). Dublin, Hodges, Figgis and Co., 1921. Pp. 59. 2 plates. 12s. 6d.

C. WESSELY has lost little time in following up Part I of his Catalogue of the Rainer papyri (see *J.E.A.*, viii, 1922, 91) with a second part. This consists of papyri from Socnopaei Nesos, and comprises 184 texts, mostly unpublished. It is, like the last, reproduced from the editor's autograph; the texts are given, as before, without commentary, but with brief headings, and there are indices, and hand-copies of portions of many papyri as specimens of the hands. The texts are largely of familiar types, but there are many noteworthy points; reference may be made to two interesting orders to bankers (3, 4; in 4 a village Πᾶν τῆς αἰῆς Ἀπαβίας); to an allusion to an epidemic and a great ἀναχώρησις (33; is this papyrus therefore to be placed in the second century rather than, with W., in the first?); to a good list of σύνταξι θεοί (39); to a receipt for earnest-money paid to flute-players for a performance at Socnopaei Nesos (47); to an interesting account of funeral expenses (56); to a receipt for javelins (92); to an exceedingly valuable account of miscellaneous expenses in a temple (183); etc. One cannot but admire the indomitable energy and the self-devoting zeal for his work which enables Wessely to continue his undertaking in the face of such cruel difficulties. *Catalogus Papyrorum Raineri. Series Graeca. Pars II. Papyri N. 24858—25024 aliique in Socnopaei Insula scripti*. (*Studien f. Pal. u. Pap.*, xxii.) Lipsiae, H. Haessel, 1922. Pp. 60.

The third volume in the series *Coptica* started under the Rask-Orsted Foundation at Copenhagen is a collection of Greek and Coptic texts from Wadi Sarga, chiefly the proceeds of the excavations undertaken on that site by the Byzantine Research Account in 1913—1914. They consist of ostraca, stelae and graffiti, and various vellum and papyrus fragments, and have been edited by W. E. CRUM and H. I. BELL. There is no single text of special importance, and so many of them, especially among the Greek ostraca,

¹ Inscriptions, which properly do not fall within my sphere, I mention only for the light they throw on other subjects, and they are therefore, in general, placed under the subjects to which they refer.

are of a single type that a good deal of the volume is rather dull reading; but the *ensemble* has a real interest and value for the light which it throws on the life and activities of a monastic settlement in the sixth and seventh centuries. There are several theological and biblical texts (see above, § 2, p. 102). The texts are edited with introductions and commentaries, and there is a general introduction in which some of the principal questions raised by the collection as a whole are discussed. The first section of this is an account of the excavations by the excavator, R. CAMPBELL THOMPSON. *Coptica*, III. *Wadi Sarga. Coptic and Greek Texts*. Hauniae, Gyldendalske Boghandel, 1922. Pp. xx + 233. 2 plates and map. 15s.

P. VIERECK has published a collection of ostraca, partly at Brussels and partly from the Berlin collection. They number 99, and are for the most part of the usual type. There is no outstanding text, but the ostraca usefully supplement existing publications. They are provided with adequate commentaries and the usual indices. *Ostraka aus Brüssel und Berlin*. (Papyrussinstitut Heidelberg, Schrift 4.) Verein. wiss. Verleger, Berlin und Leipzig, 1922. Pp. iii + 177.

No further Zeno texts from the Cairo collection have appeared since my last notice, but to make up for this P. JOUGUET has published four papyri from the Lille collection (acquired in 1914), thus adding one more to the already considerable list of libraries possessing portions of this widely-diffused archive. There are in all six texts of the third century B.C., but only four are published, one of the remainder being a mere scrap, while the other, dated in the 28th year of Philometor, is regarded by Jouguet, certainly with justice, as not belonging to the Zeno archive. The most interesting of the published texts is no. 1 (with facsimile), Eucles to Apollonius (4th year of Energetes), which contains much matter of value. No. 2 is from Nicaeus, a *ξενιαγός*, to Eucles, about *ξένια*, etc. (verso, 2nd year); 3 is a fragment (Maron to Phanesis), and 4 a money account. Texts, critical notes, translation, and commentary are given throughout. *Petit supplément aux archives de Zénon*, in *Cinqu. de l'école prat. des hautes études*, 1921, 215-36. I may mention here that three new Zeno papyri, one a particularly fine specimen, have just been acquired by Cornell University.

A. CALDERINI has published, as an earnest of the expected volume of Milan papyri (see *J.E.A.*, VIII, 1922, 99), a sale of part of a palm-grove from Pathyris, dated in B.C. 105. Text, translation and commentary are given. *Un papiro greco inedito della nuova raccolta milanese*, in *Rev. Ét. égypt. dédiées à la mém. de J.-F. Champollion* (Paris, H. Champion, 1922), pp. 675-83.

A. E. R. BOAK, who is preparing an edition of some at least of the already splendid collection of papyri, etc., in the library of Michigan University, has begun by bringing out separately one or two single texts (see *J.E.A.*, VIII, 92). P. Mich. Inv. 99 and 98, two notarial documents dated at Bacchias in A.D. 72 and 75 respectively, are successive divisions of fractions of the same property; both are in good preservation. *Two Contracts for Division of Property from Graeco-Roman Egypt*, in *Trans. Am. Phil. Ass.*, LII (1921), 82-95. Another document edited by him is a waxed diptych (wood), containing entries of reaping and threshing, probably at or near Bacchias. It is evidently of the nature of a day-book; the date is the third century. *An Overseer's Day-Book from the Fayoum*, in *Journ. Hell. Stud.*, XLI (1921), 217-21. 2 plates.

A. STEIN has succeeded in piecing together (he had, unknown to him, been anticipated by S. DE RICCI) two fragments to give the beginning of an Alexandrian inscription containing *ὑπομνηματισμοί* of M. Moesiacus, Idiologus, in the fifth year of Hadrian. The subject is a dispute concerning *μνηματοφύλαξ* (apparently a new word). *Zu alexandrinischen Inschriftfragmenten*, in *Jahreshefte d. öst. arch. Inst.*, XXI, XXII (1922), 271-6.

O. EGER has published a rather interesting waxed tablet (the third of a triptych) from Ravenna. It was found in Egypt, and is now at Giessen. It concerns the sale of a female slave; the preserved portion consists of the *scriptura exterior*, in the form of a chirograph. One subscription is in Latin; the other, though in the Latin language, is written in Greek letters. *Eine Wachstafel aus Ravenna aus dem zweiten Jahrhundert nach Chr.*, in *Z. Sav.-St.*, XLII (1921), 452-68.

In the article by H. I. BELL noticed below is published an interesting document of sale in the British Museum; see § 4, p. 107.

P. Oxy. XIV has been reviewed by K. FR. W. SCHMIDT (*Gött. gel. Anz.*, CLXXXIV, 1922, 99-114; long and important) and A. MERLIN (*Journ. des Sav.*, XIX, 1921, 129-30); Wessely's *Studien*, XX by C. O. ZURETTI (*Boll. di Fil. Class.*, XXVIII, 1921-2, 165-6) and A. STEIN (*Lit. Zentralbl.*, LXXII, 1921, 957-8); P. Basel by F. OERTEL (*Hist. Vierteljahrschr.*, N.F., XX, 1920-22, 496-7); and Sottas's *Pap. dém. de Lille* by F. LL. GRIFFITH (*J.E.A.*, VIII, 1922, 110-1) and A. CALDERINI (*Aegyptus*, III, 1922, 233-4).

I referred last year (*J.E.A.*, VIII, 100) to the discovery of two papyri in the Sinai region. These have now been published by W. SCHUBART. They are small fragments of sixth-century contracts (or two frag-

ments of a single contract), relating to an undertaking of some kind with hypothecation. Their value lies rather in the hint they give as to the possibility of further discoveries than in their intrinsic interest. *Bruchstücke zweier Urkunden aus der Kirche zu Hafir el-Audacha*, § 13 in *Wiss. Veröff. des Deutsch-Türkischen Denkmalschutzkommandos* (Berlin u. Leipzig), I (1920), pp. 110-2.

4. POLITICAL AND MILITARY HISTORY, ADMINISTRATION, CHRONOLOGY, TOPOGRAPHY.

The most important item under this head is a volume produced by W. SCHUBART, whose energy seems indefatigable. This is a sketch of the history (in the widest sense) of Egypt from its conquest by Alexander to the Arab invasion. Schubart here portrays in outline the whole life of the country in its various aspects. He divides the work into three parts, devoted respectively to Alexandria, Memphis and the Fayum, and the Thebaid, and in each case the evidence is digested under various heads, population, trade, industry, religion, and the like. The work is a remarkable achievement; it shows, like its predecessor, the *Einführung*, a very wide range of knowledge and an almost uncanny power of compressing a vast amount of information, the result of long research, into very small compass. And Schubart is able throughout to retain his readers' interest. One criticism may indeed be passed on it: there are no references whatever. The desire to banish the footnotes which are such a hindrance to the reading of many similar works is comprehensible, but it is regrettable that Schubart did not collect his notes and references separately, at the end either of each chapter, as in the *Einführung*, or of the volume. On many subjects certainty is not attainable, and even the best-informed of Schubart's readers will meet with statements for which he cannot readily find the authority. The book was perhaps intended mainly for the general reader rather than the specialist, but a writer of Schubart's importance cannot safely be neglected by even the best-equipped scholar, and this volume will certainly be in constant use among papyrologists. *Ägypten von Alexander dem Grossen bis auf Mohammed*. Berlin, Weidmann, 1922. Pp. iii + 679. 1 plate and a map.

SCHUBART has also published an article, apparently of some importance, on the Greeks in Egypt, which I know only from a reference to it by Wenger ("Schubarts grosszügigen Aufsatz Hellenen in Ägypten im Organ der deutsch-griechischen Gesellschaft Hellas 1921, Nr. 8, S. 4 ff."). The same subject (or rather the relations of Greeks and Egyptians) was briefly sketched by M. ENGERS in a paper read at the ninth Philological Congress at Amsterdam and now published. Engers here, after an introduction, deals separately with law, religion, army, administration, social intercourse, and language. *Grieken en Egyptenaren in Egypte onder de Ptolemeën*, in *Tijdschrift voor Geschiedenis*, XXXVI (1921), 31-44. Another treatment of it by the present writer, to be published in this *Journal*, will doubtless have appeared before this bibliography is in type.

The position of the Jews in Egypt has received much attention lately. A. N. MODONA has concluded his article *La vita pubblica e privata degli Ebrei in Egitto nell'età ellenistica e romana* (*Aegyptus*, III, 1922, 19-43; for the first part see *J.E.A.*, VIII, 93). This article is reviewed by P. JOUGUET (*Rev. ét. anc.*, XXIV, 1922, 347). W. M. FLINDERS PETRIE made the Jews in Egypt the subject of the fifth "Arthur Davis Memorial" lecture, which he was requested to deliver. In this he gives a brief popular account of the subject, beginning with the earliest times. He publishes provisional translations of some Hebrew papyrus fragments found by him last season at Oxyrhynchus and a facsimile of one. (He dates them third century, but this is almost certainly too early.) *The Status of the Jews in Egypt*. London, Allen and Unwin, 1922. Pp. 44. 1 Plate. 2s. nett. M. ENGERS re-examines the much-debated question of the political position of the Alexandrian Jews. He concludes that they were not citizens; Philo's evidence is against, not for, that supposition, and the well-known edict of Claudius does not imply it. Josephus was in error. (I may add here that the British Museum in 1921 acquired a very important papyrus throwing further light on the question. Of this, with other noteworthy papyri (acquired in 1922), I am preparing a special edition, and in my work on this had arrived independently at conclusions very similar to those of Engers.) *Die staatsrechtliche Stellung der alexandrinischen Juden*, in *Klio*, XVIII (1922), 79-90. I may just refer here to the publication by C. C. EDGAR of some new inscriptions from Tell-el-Yahudieh, which throw further light on the Jewish settlement there. *More Tomb-Stones from Tell el Yahoudieh*, in *Ann. du Service*, XXII, 7-16. In an important article A. V. PREMERSTEIN republishes the so-called "Paulus and Antoninus Acta" in both versions, with notes and some general discussion. *Alexandrinische und jüdische Gesandte vor Kaiser Hadrian*, in *Hermes*, LVII (1923), 266-316.

An article (referred to by Jouguet) of L. PIOTROWICZ on the nomarch is in Polish and therefore beyond my competence. *Stanowisko Nomarchów w administracji Egiptu w okresie grecko-rzymskim* (Société scient. de Poznań, Travaux de la Comm. historique, t. II, livr. 4, 77 p., 1922).

Among works dealing with the Ptolemaic period only the most important is no doubt a volume which I have not had an opportunity of seeing. This is a work by M. HOLLEAUX on Rome and the Greek world in the third century B.C. Though not directly concerned with our subject it is presumably of considerable value even to papyrologists as illuminating the historical background. *Rome, la Grèce et les monarchies hellénistiques au III^e siècle avant Jésus-Christ*, 1922. Fr. 40. It is favourably reviewed by S. REINACH (*Rev. Archéol.*, xv, 1922, 372) and M. GELZER (*Phil. Woch.*, xlii, 1922, 1132-40).

The old question what was the *ἐπιγονή* has been discussed during the period reviewed by two scholars. I referred last year (*J.E.A.*, viii, 94) to an article, then not accessible to me, by FR. VON WOESS. In this he arrives at the following conclusions: The term *ἐπιγονή* denotes origin; it refers to "die im Lande geborene fremdstämmige, also nicht-ägyptische Bewohnerschaft Gräko-Ägyptens"—but not all; only "soweit sie nicht in einem *πολίτευμα* organisiert ist." All military corps are *πολιτεύματα*; hence the epigone who becomes a soldier passes out of the Epigone. The *ἀγώγιμος*-clause, found practically only in the case of Persians, refers to the fact that the Persians, traditionally regarded by the idol-loving Egyptians as "impious," could not claim right of sanctuary. *Die ἀγώγιμος-Klausel und die Πέρσαι τῆς ἐπιγονῆς*, in *Z. Sav.-St.*, xlii (1921), 176-97. On the other hand A. SEGGE, examining the problem without knowledge of v. Woess's article, concludes: That the Epigone were all the descendants of a cleruch who had no share (or an insufficient share) in the *kleros*; that the Persians of the Epigone were descendants of many poor cleruchs established in the reign of Euergetes II, and especially of the *ἐπιτροποὶ μάχιμοι*, organized in *λαρχαίαι*, chiefly natives to whom was granted the Persian *πολίτευμα*. In a postscript, added after seeing v. Woess's article, he replies to his theory; he here declares that the term *ἀγώγιμος* was applied to the Persians only because there were three classes, viz. (1) Macedonians (or rather Greeks?), not in general *ἀγώγιμοι*, (2) Persians, *ἀγώγιμοι* only by agreement, (3) Egyptians, *ἀγώγιμοι* without agreement. *Note sul POΛΙΤΕΥΜΑ e ΠΕΡΙΓΟΝΗ in Egitto*, in *Aegyptus*, iii (1922), 143-55.

M. HOLLEAUX re-examines the question as to the identity of the prince of Telmessos known as Ptolemaios Epigonos, with special reference to an article by E. von Stern (*Hermes*, 1915). He rejects S.'s identification of him with the nephew of Ptolemy Euergetes and son of Lysimachus, and adheres to his former view that he was the son of King Lysimachus and Arsinoe (II), daughter of Soter and sister of Philadelphus. He appends a valuable discussion of the term *ἐπιγονος*. *Ptolemaios Epigonos*, in *Journ. Hell. Stud.*, xli (1921), 183-98.

P. COLLART has published a very useful article on the revolt of the Thebaid in A.C. 88, republishing *P. Bouriant* 40, *P. Lond.* 465 (published by Grenfell), *P. Bouriant* 51, with translations, and giving a translation of *P. Bouriant* 55. He shows that the date of *Lond.* 465 is 28 March, 88. He discusses the situation, and the history of the revolt. *La révolte de la Thébaïde en 88 avant J.-C.*, in *Recueil Champollion*, pp. 273-82.

W. SPIEGELBERG finds in a Demotic stela from the Serapeum of Memphis (110) partially edited by Revillout a reference to the presence of Ptolemy XI Alexander at Pelusium in A.C. 103-2, and connects it with the campaign of Cleopatra against her son Soter II (Lathyrus). But he admits that the reading of the name Pelusium is not certain. *Ein historisches Datum aus der Zeit des Ptolemaios XI Alexandros*, in *Äg. Z.*, LVII (1922), 69.

Coming now to the Roman period, I may refer first to a very interesting article by M. GELZER on Rome as a civilizing factor. It is not papyrological, but can be read with profit by students of the Roman period of Egyptian history. He holds that Rome partially failed as a *Kulturträger* because her educational policy was too narrow, being confined to the upper classes. *Das Römertum als Kulturmacht*, in *Hist. Zeitschr.*, CXXVI, 189-206.

TH. REIL has reviewed Oertel's *Liturgie* (*Hist. Vierteljahrschr.*, N.F., xx, 1920-2, 326-30; laudatory).

SUSAN N. BALLOU has published an interesting article on the *cursus honorum* of the higher Roman officials in Egypt during the second century, which, however, involves a good deal of wasted labour owing to the fact that she bases her treatment of the prefects on the out-of-date list in Meyer's *Heeren* and has evidently undertaken a good deal of research to establish facts which she could have found in the later lists of Cantarelli and Lesquier (in his *Armée romaine*). The article is marred too by some curious blunders, as *Italia* for *Italus* (p. 99, four times) and *Rhamninus* Martialis; but she has done a useful service

in illustrating the careers of typical officials, and makes some acute remarks. *The Carrière of the Higher Roman Officials in Egypt in the Second Century*, in *Trans. Am. Phil. Ass.*, LII (1921), 96-110.

The Gnomon continues to attract a good deal of attention. The original edition is reviewed by K. FR. W. SCHMIDT (*Phil. Woch.*, XLII, 1922, 145-52, 173-8) and (in the form of an article on the subject) by V. ARANGIO-RUIZ (*Un "Liber mandatorum" da Augusto ad Antonino Pio*, in *Atene e Roma*, N.S., III, 1922, 216-23), and Th. Reinach's re-edition (see *J.E.A.*, VIII, 94 f.) by P. JOUGUET (*Rev. Hist.*, CXLII, 1922, 89-91; "solide et brillant mémoire écrit avec la triple compétence du juriste, de l'historien et du papyrologue"). J. CARCOPINO devotes to the subject, with special reference to Reinach's edition, which he praises highly, a longish article, discussing the historical bearings of the Gnomon. *Le gnomon de l'idologue et son importance historique*, in *Rev. ét. anc.*, XXIV (1922), 161-17, 211-28.

In the edict of the prefect Petronius Mamertinus published as PSI. v, 446, A. WILHELM proposes to substitute in l. 10 *ἀναβάλλεσθαι* for the *ἀναβάλλεσθαι* of the editors. *Zum Edikt des M. Petronius Mamertinus*, in *Phil. Woch.*, XLII (1922), 24.

N. GIRON publishes a new inscription of Ptolemy, the strategus under Augustus (*Une nouvelle dédicace dénotique de Ptolémée, le Stratège*, in *Ann. du Serv.*, XXII, 1922, 108-12; dated 21 Augustus, 1 Thoth), and W. SPIEGELBERG discusses a statue of the strategus Pamenches found at Denderah and published by Daressy (*Ann. du Serv.*, XVIII, 186). It represents a man in Greek dress. Spiegelberg takes him as strategus of the Thebaid, and gives a list of the other strategi so far known. The date is the reign of Augustus. *Der Strategie Pamenches (mit einem Anhang über die bisher aus ägyptischen Texten bekannt gewordenen Strategen)*, in *Äg. Z.*, LVII (1922), 88-92.

G. ROOS has published a rather important article on Apollonius, the well-known strategus of Apollonopolis Heptakomia. He gives many translations from the papyri, and at the end of each instalment adds notes and references. *Apollonius, Strategus von Heptakomia*, in *Tijdschr. voor Geschiedenis*, XXXVII (1922), 1-40, 129-46.

A long and laudatory review of Lesquier's *Armée romaine* has been published by A. MERLIN (*Journ. de Sac.*, XX, 1922, 19-26; "incontestablement un très beau livre").

On the Byzantine age I have but three references. One is a very interesting and readable account by L. WENGER of conditions on the eve of the Arab conquest, emphasizing the impotence of the Government, the misery of the people, their alienation from the state on both religious and economic grounds, and the inevitableness of the ensuing collapse. *Volk und Staat in Ägypten am Ausgang der Römerherrschaft: Festrede gehalten in der öffentl. Sitzung der B. Ak. d. Wiss. am 22 Juni, 1921*. München, Verlag der Bayer. Ak., 1922. Pp. 58. The second is the masterly edition of the letters, laws and poems of Julian the Apostate by J. BIDEZ and F. CUMONT, in which is included the edict on the *aurum coronarium* contained in *P. Fay.* 20. The authorship has been much debated (cf. *J.E.A.*, VIII, 93), but the editors, though regarding it as doubtful, felt it could hardly be omitted ("nobis certe textus, etsi dubiae originis, hic collocandus erat"). *Juliani Imperatoris Epistulae Leges Poemata Fragmenta Varia*. (Novv. Coll. de textes et documents... *Ass. Guillaume Bude*.) Paris, Soc. d'Éd. "Les Belles Lettres," 1922. Pp. xxvi+328. (*P. Fay.* 20, pp. 83-7.) Lastly, H. I. BELL, publishing a sale of land, dated A.D. 365, which includes royal land, discusses the steps by which royal and public land may have passed into private ownership and so disappeared from the economic ensemble of Byzantine Egypt. *An Epoch in the Agrarian History of Egypt*, in *Recueil Champollion*, pp. 261-71.

There are several items under the head of topography. A re-edition, in English, by E. BRECCIA, of his *Alexandrea ad Aegyptum* (Municipality of Alexandria, 1922; pp. xvi+368, 257 figures, 1 plate) is not yet accessible to me. It is reviewed by A. CALDERINI (*Aegyptus*, III, 1922, 113-4). Schubart refers (*Sokrates*, XLVII, 1921, 156) to a work ("knapper Abriss") by H. SCHMITZ entitled *Topographie von Hermopolis Magna* (Freiburg i. B., 1921). I have been unable to see this and am informed it has not been printed, though the form of the reference would seem to imply that it has. FR. ORTEL has reviewed Méautis's *Hermopolis-la-Grande* (*Phil. Woch.*, XLII, 1922, 803-12). He praises it but makes many criticisms of detail, and thinks (surely unreasonably) that the choice of the subject was unfortunate. Some hieroglyphic inscriptions from Naukratis show, as C. C. EDGAR points out, that there was an Egyptian temple there; he identifies it with Petrie's "Great Temenos." He points out evidence in PSI. 543 which proves that Naukratis was on the east bank. *Some Hieroglyphic Inscriptions from Naukratis*, in *Ann. du Serv.*, XXII, 1-6. U. MONNERET DE VILLARD publishes, with plates and introduction, an Arabic text relating to the Pharos of Alexandria. *Il Faro di Alessandria secondo un testo e disegni arabi inediti da codici Milanesi*

Ambrosiani, in *Bull. Soc. Arch. d'Alex.*, N.S., v, 13—35. A note supplementary to this and relating specially to the relation between the Arab writers and the Pseudo-Bede, has subsequently been published by him in *Aegyptus*, III (1922), 193 (*Sul faro di Alessandria*). His original article is reviewed by A. C[ALDERINI] (*ibid.*, 230—1).

P. JOUGUET calls attention to a note (attributed to Cornutus) on Lucan in the Codex Bernensis 370, mentioning *urbis plicia* (at Massilia). He proposes to read *urbis plintheia*, *plicia* being a mis-copying of the archetype: *plieia* and so *plicia*. If this, he remarks, is correct, Massilia was built on a regular plan. *Un terme alexandrin dans la toponymie de Marseille*, in *Recueil Champollion*, pp. 245—53.

Under this heading I may perhaps place an interesting article by J. BAILLET on the graffiti of the Theban *syringes*, in which he seeks to determine, from the dates which occur, the relative popularity of the various seasons among visitors. Almost all the months are represented but, as is natural, the winter months were, as with modern visitors, the most popular. *Le calendrier des touristes dans les syringes thébaines*, in *Recueil Champollion*, pp. 103—18.

Under the head of chronology I have but two references. C. C. EDGAR again discusses the Ptolemaic calendar, testing his theory by certain new evidence. On the whole he finds this new evidence favourable; he thinks it rather supports Lesquier's suggestion that the starting-point of the Macedonian year was the king's birthday. There is much uncertainty, and Edgar shows, as always, a praiseworthy caution, but it seems clear that the problem has been brought appreciably nearer to a solution. Whether a completely satisfactory and water-tight theory will ever be arrived at is perhaps doubtful. *A Chronological Problem*, in *Recueil Champollion*, pp. 119—31. L. HOLZAPFEL discusses various Imperial datings, in his latest article those of Antoninus Pius and M. Aurelius and of Pertinax. *Römische Kaiserdaten*, in *Klio*, XVIII (1922), 91—103.

5. ECONOMICS AND SOCIAL HISTORY, NUMISMATICS.

In a work on the financial history of the ancient world E. CICCOTTI deals, *inter alia*, with Egypt (pp. 29—75), making use of papyrus evidence and giving a general sketch of the financial policy of the Ptolemies. *Lineamenti dell'evoluzione tributaria nel mondo antico*. Milano, Soc. editr. libraria, 1921. Pp. 217. His volume is reviewed by J. CARCOFINO (*Rev. ét. anc.*, XXIV, 1922, 347—9; laudatory on the whole). A. Segrè has published a book on the relation between currency and the prices of commodities in the ancient world and particularly in Egypt. The latter part of this consists of tables giving the prices of various articles at successive periods, the earlier part of a continuous narrative in which the material presented in the tables is made the basis of a history of prices. The utility of this of course depends largely on the correctness of Segrè's theories on metrology and currency, which are not always beyond dispute; but one fact at least emerges, the tendency, fairly steady though not quite without interruption, to a rise of prices throughout the whole Graeco-Roman period; and in any case the tables at the end will be extremely useful. *Circolazione monetaria e prezzi nel mondo antico ed in particolare in Egitto*. Roma, Libreria di Cultura, 1922. Pp. 175.

The Zeno papyri are of immense and indeed epoch-making importance in several directions, and most of all for the economic history of Early Ptolemaic Egypt. This aspect of the material they contain has now been treated by an authority of the first rank, M. ROSTOVITZ, in a masterly volume. As he emphasizes, his conclusions here are of necessity tentative because many of the Zeno papyri are still unpublished, but it is unlikely that the main lines of the picture he educes from the published documents will be radically affected by later texts, and his volume is likely to be for some time a standard authority not on the Zeno archive only but on the economic policy of Ptolemy Philadelphus generally. *A Large Estate in Egypt in the Third Century B.C.: A Study in Economic History*. (Univ. of Wisconsin Studies in the Social Sciences and History, no. 6.) Madison, 1922. Pp. xi+209. 3 Plates. \$2. P. JOUGUET deals with this volume and its bearing on the history of Egypt in an elaborate article (*L'administration d'un grand domaine égyptien sous les Lagides*, in *Rev. ét. anc.*, XXIV, 1922, 336—42), and it has also been reviewed by S. B[EINACH] (*Rev. Archéol.*, xv, 1922, 362) and G. TOGNI (*Aegyptus*, III, 1922, 235—8).

W. L. WESTERMANN continues to devote his attention to the land categories of Graeco-Roman Egypt. In his latest article on this subject he develops the view that the "dry" land (*χέρσος*), as distinct from the flooded (*ὑδροποιός*) and unflooded (*ἀρροχός*) land was not infertile land but land "which in any given year was not reached and overspread by the Nile waters at the time when the sluices in the canals were opened and the water from the canals was let in upon the fields.... It was distinct from the 'unflooded'

by the fact that it could not be irrigated in the particular year in which it was 'dry,' by ditching in from the 'flooded' section of any basin." It required labour to become fertile, and hence was usually the first land to be abandoned in time of difficulty. The "Dry Land" in Ptolemaic and Roman Egypt, in *Class. Phil.*, xvii (1922), 21—36. In connexion with this subject I may just refer to a publication by G. LIEFEBVRE of some inscriptions of the time of Diocletian and later recording the annual inundation. *La fête du Nil à Achéris*, in *Bull. Soc. Arch. d'Alex.*, N.S., v, 47—59.

Several of G. LEBROSO's characteristic and always interesting letters have appeared during the period reviewed. Three to the editor of *Aegyptus* (III, 1922, 44—8) deal with the following points:—X. He points out, in addition to the instance in Pliny, a possible mention of an Alexandrian *πλάvus* (γελωτοποιός) in Horace, *Ep.* i, 17, 58—62. XI. He quotes two parallel passages on the asp from Plut., *Ant.* 71 (Cleopatra) and Galen, xiv, 237, which seem to indicate a gradation in the forms of capital punishment at Alexandria. XII. A propos of a passage of Dio Cassius describing Antony's triumph at Alexandria when two kings were led in chains of gold and silver, he collects other instances of the use of the precious metals for such purposes. In another letter, to Breccia (*Bull. Soc. Arch. d'Alex.*, N.S., v, 12), he illustrates the ancient practice of exporting Nile water and Nile sand, and quotes an interesting passage from Gérard de Nerval showing that Nile water still is (or was) exported to Constantinople.

J. G. MILNE catalogues two Roman hoards of coins obtained by Prof. Petria. The first seems to have been deposited at the beginning of Julian's reign, the second (found at Hawara in the Fayum) about 400—10. *Two Roman Hoards of Coins from Egypt*, in *Journ. Rom. Stud.*, x (1920), 169—84.

An article by A. CALDERINI entitled *Nuovi contributi alle questioni monetarie nei documenti dei papiri* (*Riv. Ital. Num.*, 2 S., II, Anno XXXII, 139 ff.) is not at present accessible to me.

Reference may here be made to an interesting address of W. LEAF to the Classical Association (*Classics and Reality*, *Proc. Class. Ass.*, August, 1921, xviii, 1922, 6s. net, pp. 20—43), in which he discusses ancient banking and in particular calls attention to the epigram of Callimachus advertising the bank of Caicus and raises the question whether *δέρναι χρήματα* were anything at all analogous to the modern bills of exchange.

Lastly, I have a reference, which I am unable to verify, as the article is not yet accessible to me, to A. KAPPELMACHER, *Zur Deutung der ABC-Denkmal* (*Wiener Studien*, XLII, 85—7). Does this refer to school-books (writing exercises) of the type not uncommon in papyri? It deals, I am told, largely with two papyri.

6. LAW¹.

P. COLLINET has published the very interesting lectures on the codification of Justinian delivered by him in March, 1922, at Oxford. These present the main outlines of a forthcoming volume by him, giving rather his conclusions than the process by which he arrived at them. He sums up the problems discussed under four heads: (1) the aim of Justinian's codification; (2) its general characteristics; (3) its sources; (4) the drafting of the code. He lays great stress on the importance of the Berytus law school, to which indeed he attributes a decisive influence. He believes in the existence of pre-Justinian interpolations, which were Greek scholia of the Berytus Doctors. *The General Problems raised by the Codification of Justinian*, in *Tijdschrift voor Geschiedenis*, 1922, 30 pp. of the article.

A Polish article by R. TAUBENSCHLAG on "Das Lokalrecht in den Digesta und Responsa des Cervidius Scaevola" (*Anz. der Stzgsber. d. Ak. d. Wiss., Krakau*, 1919, 17 March) is known to me only from a reference by P. M. Meyer (*Z. f. vergl. Rechtsw.*, xl, 175). The same remark applies to another article by the same on the "Process" of St Paul in the light of papyrological evidence (*ibid.*; Meyer, p. 217; probably that referred to by me in *J.E.A.*, vii, 1921, 99), one by WLAŚAK on *Der Judikationsbefehl der römischen Prozesse, mit Beiträgen zur Scheidung des privaten und öffentlichen Rechtes* (*Stzgsber. Wien. Ak.*, CXCvii, 1921; Meyer, pp. 216—7), and a volume by EGER entitled *Rechtsgeschichtliches zum Neuen Testament* (Basel, 1919; Meyer, p. 217).

San Nicolò's *Vereinwesen* is reviewed by M. GELZER (*Deutsche Lit.-Z.*, XLII, 1921, 609—13; laudatory), Sethe-Partsch's *Bürgschaftsrecht* by A. WIEDEMANN (*Or. Lit.-Z.*, xxv, 1922, 311—2) and W. OTTO (*Phil. Week.*, XLII, 1922, 272—9; an interesting and important review), and Schwarz's *Off. u. priv. Urkunde* by E. KÜHN (*Or. Lit.-Z.*, xxv, 1922, 166—9).

A. SEGRÈ discusses the *συγγραφή εξαμύρου*, with special reference to Mitteis, *Chrest.* 136 and Wessely, *Stud.*, xx, 16. As against the views both of Wilcken and of Mitteis he concludes that it was in the Roman

¹ For bibliographies of juristic literature see below, § 9.

period a subjective, and no longer (as in the Ptolemaic period) an objective agreement. *Eine neue συγγραφὴ ἐλαφύρπυρος*, in *Phil. Woch.*, XLII (1922), 669-70.

M. E. TITCHENER has published a useful article on the guardianship of women in Graeco-Roman Egypt. Taking separately the *ἐπίτροπος* (guardian of minors), and the *κῦριος* (*tutor mulieris*), she collects instances and draws up tables to illustrate, in the one case, the occurrence of one guardian or a plurality of guardians, and, in the other, appointments *ad actum* or by the Lex Julia et Titia and the various degrees of relationship from within which guardians were drawn. *Guardianship of Women in Egypt during the Ptolemaic and Roman Eras*, in *Univ. of Wisconsin Studies in Language and Lit.*, no. 15 (1922), 20-8.

J. PARTSCH, in an article on *Die Lehre vom Scheingeschäfte im römischen Rechte* (*Z. Sav.-St.*, XLII, 1921, 227-72; to be continued), introduces a very few papyrus references. The same remark applies to cap. CXVII of J. C. NABER's *Observatiunculae*, entitled *Quid Paulus scripserit de literis dimissoriis* (*Mnemosyne*, N.S., xv, 1922, 1-5).

FR. EHRRARD reviews L. Guenoun's *Cessio bonorum* (*Vierteljahrchr. f. Soz. u. Wirt.*, xvi, 198-200).

ST. BRASSLOFF has published a short article on a clause in *P. Hal.* 1 prohibiting the enslavement of citizens of Alexandria to other citizens, adducing parallels from Roman, German, and Jewish law. *Zum Papyrus Hal. 1*, 219 ff., in *Hermes*, LVII, 1922, 472-5.

À propos of *P. Cairo Masp.* 67032 P. S. LEICHT writes on the *executor litis*, seeking to illustrate his rôle by the practice shown in early Italian documents. There are resemblances but also differences between the practice there and that implied by the Cairo papyrus. *Executor litis nel processo Ravennate*, in *Atti R. Ist. Veneto*, LXXIX (1919-20), 563-79.

L. WENGER has published an interesting article on the curious document of which two drafts survive as *P. Cairo Masp.* 67089 and 67294. By a conflation of the two he produces a complete corrected text, which he translates; and he appends a discussion of the legal significance of the document. *Ein christliches Freiheitszeugnis in den ägyptischen Papyri*, in *Festgabe A. Ehrhard* (Bonn, 1922), pp. 451-78.

F. VASSALLI republishes the text of the Latin sale of a horse published as PSI. 729, making suggestions for readings, and adds some notes on it. *Osservazioni sopra il contratto di vendita di un cavallo contenuto in un papiro egizio*, in *Bull. dell' Ist. di Dir. Rom.*, XXXI, 1921, 144-9.

P. DE FRANCISCI republishes *P. Oxy.* 1814 (see above, § 1) with a commentary, emphasizing its very great importance. *Frammento di un indice del primo Codice Giustiniano*, in *Aegyptus*, III, 1922, 68-79.

I must refer here to a work not directly concerned with Egypt but by a scholar who won his spurs in the field of papyrology and containing frequent references, whether for comparison or for contrast, to Egyptian practice. This is a volume by M. SAN NICOLÒ on the concluding clauses of early Babylonian contracts of sale and exchange, these being studied with reference to the light they throw on the evolution of the law of sale. *Die Schlussklauseln der altbabylonischen Kauf- und Tauschverträge: ein Beitrag zur Geschichte des Barkaufes*, (*Münchener Beiträge zur Papyrusforschung u. ant. Rechtsgeschichte*, Heft IV.) München, Oskar Beck, 1922. Pp. xviii+244. The volume is reviewed by P. DE FRANCISCI (*Aegyptus*, III, 1922, 108-10) and E. GRUPE (*Phil. Woch.*, XLII, 1922, 1115-7), and a review by the present writer appears below in this number of the *J.E.A.* In connexion with San Nicolò's volume I may refer to a work which has indeed even less connexion with Egypt than his but which deals with the same period and to some extent with the same or similar material, though from a different standpoint, viz.: J. G. LAUTNER, *Die richterliche Entscheidung und die Streitbeendigung im altbabylonischen Prozessrechte*, (*Leipziger rechtswissenschaftliche Studien*, Heft 3.) Leipzig, Th. Weicher, 1922. Pp. ix+88.

7. PALAEOGRAPHY AND DIPLOMATIC.

A. S. HUNT has published a curious and interesting papyrus acquired by Grenfell in 1919-20. Its exact interpretation is extremely doubtful, but it contains tachygraphic symbols accompanied by words arranged in fours. These fours are perhaps selected on mnemonic principles, as a certain community of idea runs through several of the series, but in other cases no such single idea can be traced, and it must be confessed that the problem as a whole still awaits solution. The papyrus dates from the first half of the third century, and contains parts of three columns, with very scanty traces of a fourth. *A Tachygraphical Curiosity*, in *Recueil Champollion*, pp. 713-20.

W. SCSS in an article on ancient cyphers has some references to papyrus instances of stenography or notarial signs. *Über antike Geheimschreibemethoden und ihr Nachleben*, in *Philologus*, LXXVIII (1922), 142-75.

The inks used in the papyri furnish an interesting subject of investigation, and it is a little surprising

that it has not received more attention. A. LUCAS has now published a paper (originally read by him on 7 Dec., 1921) on this subject. He has examined ancient Egyptian dried ink, which he found to be carbon; and the same was the case with the ostraca tested. The inks on papyri examined (down to the ninth century) were black or occasionally brown, but both kinds were carbon inks. Parchments of the seventh—twelfth centuries in all cases showed brown ink, and this was an iron compound. In old Arabic and Coptic paper books examined were carbon inks, which gave a slight reaction for iron; one was an iron compound. Lucas points out that carbon ink is sometimes brown, and discusses possible reasons for this. *The Inks of Ancient and Modern Egypt*, in *The Analyst*, Jan., 1922, 9—15.

Hasebroek's *Signalement* (see *J.E.A.*, VIII, 1922, 98) is reviewed by A. STEIN (*Phil. Woch.*, XLII, 1922, 488-9) and A. CALDARA (*Aegyptus*, III, 1922, 239-41).

8. GRAMMAR AND LEXICOGRAPHY.

Part 2 of vol. II of J. H. MOULTON's *Grammar of New Testament Greek* (see *J.E.A.*, VII, 1921, 91) is reviewed by G. C. RICHARDS (*Journ. Theol. Stud.*, XXIII, 1921-2, 437-8). C. H. DODD publishes some linguistic notes on *P. Oxy.* XIV, with special reference to N.T. usage. *Notes from Papyri*, in *Journ. Theol. Stud.*, XXIII, 60-3. J. R. MANTON uses papyrus evidence (occasionally) in an article on certain conjunctions (ἀλλά, ἀρα, γάρ, καί) in the N.T. *New Translations for Conjunctions in the Greek New Testament*, in *The Expositor*, 8 S., 137, 376-83. A. DEISSMANN, discussing the words ἐφ' ὃ πάπει in the Betrayal of Christ, holds that the older translation is correct; ὃ is for τί. He quotes in illustration the phrase ἐφ' ὃ πάπει; εἰσπαῖνον (so he takes it, not εἰσπαῖνον ἐφ' ὃ πάπει) from certain Syrian goblets of the Imperial period. 'Friend, wherefore art thou come?' in *Expos. Times*, 1922, 491-3.

A. CALDERINI has published a somewhat detailed article on the grammatical and orthographical peculiarities of the papyri drawn up in the office of the Pathyrite agoranomi. *Anomalie grammaticali in papiri notarili greci della Tebaide (II-I sec. av. Cr.)*, in *Rend. R. Ist. Lomb.* LIV (1921), 604-18.

A. HUMPHERS examines the use of the dual by Menander and some other writers. *Le Duel chez Ménandre*, in *Rev. de Phil.*, XLVI (1922), 76-86. J. B. HALEY discusses various modal uses in the papyri, viz.: ὡν-clauses, εἰς for ἄν in relative and temporal clauses, and future temporal clauses with ἄν omitted. *Some Modal Uses in the Papyri*, in *Univ. of Wisc. Stud. in Langu. and Lit.*, no. 15 (1922), 29-32.

G. GHEDINI, without coming to any definite conclusion, discusses the origin of the combination εὐχομαι παρὰ τοῖς θεοῖς in letters. He tentatively suggests that it may be influenced by the phrase τὸ προσκύνῃμά σου παρὰ κ.τ.λ. In Christian texts he thinks παρὰ κ.τ.λ. is to be taken with ὑμῶν. ΕΥΧΟΜΑΙ ΠΑΡΑ ΤΟΙΣ ΘΕΟΙΣ nella formula di saluto, in *Aegyptus*, III (1922), 191-2.

FR. PREISIGKE's eagerly expected *Namenbuch* has appeared and has doubtless at once taken a handy place on the shelves of all papyrologists who can obtain it. In this volume Preisigke collects all the personal names in the documents. He gives accents, and indicates the dates but not the provenance of the documents referred to. An appendix by E. LITTMANN repeats the Semitic, Abyssinian and Persian names, giving the equivalents. The volume will be of enormous utility, and in my opinion the principles followed by Preisigke are, given all the circumstances, fully justified. *Namenbuch*, Heidelberg, Selbstverlag des Herausgebers, 1922. Pp. 8+cols. 528. \$7.

W. L. WESTERMANN points out that the editors' rendering of παρόρια τῆς πόλεως in *P. Oxy.* XII, 1475 as "the parts of the metropolis along the desert" will not do. The correct translation is "the space along the boundaries," and he confirms this by several instances. *On the meaning of ΠΑΡΟΡΙΑ ΤΗΣ ΠΟΛΕΩΣ*, in *Aegyptus*, III (1922), 80-1.

B. A. VAN GRONINGEN has published an important article on the word ὁμολογος. He starts from the standpoint that it "idem valet atque participium ὁμολογούμενος, 'professus,' 'qui ipse profitetur,' aut 'de quo non ambigitur,'" and then applies this general conception to the single cases. It is used of land whose irrigation is not disputed (of ἀβροχος he takes the same view as Westermann, whose article, however, he appears not to know); and so too of men, viz. those whose liability to poll-tax was not disputed (not = *deductus*, as Wilcken). So too in relation to other liabilities, as γαρύγια; and so, finally, the word was applied to things, e.g. λαογραφία. ΟΜΟΛΟΓΟΣ, in *Mnemosyne*, N.S., xv (1922), 124-37.

J. HASEBROEK returns to the subject of the word πύργος (see *J.E.A.*, VI, 1920, 141, VII, 1921, 102), showing that the sense indicated by Preisigke occurs also in the Attic orators. He remarks that these authors ought to be more studied than they are for economic details. *Nochmals ΠΥΡΓΟΣ*, "Wirtschaftsgebäude" in *Hermes*, LVII (1922), 621-3.

In the second of two lexicographical notes (the first is not papyrological) H. STUART JONES convincingly explains the use of ἀπαρχή in *Rom.* viii, 23 as "birth-certificate." Curiously enough, the Old Latin version has *receptaculum*, which is difficult to explain. ΣΗΛΑΞ—ΑΠΑΡΧΗ ΠΝΕΥΜΑΤΟΣ, in *Journ. Theol. Stud.*, XXIII (1921-2), 282-3.

9. GENERAL ARTICLES AND BIBLIOGRAPHY.

There have been several articles or small volumes dealing with the papyri and ostraca as a whole, all addressed mainly to the non-specialist. G. VITELLI has published a lecture (delivered in the Palazzo Vecchio in the presence of the King of Italy) on the science of papyrology, in which he gives a general account of the papyri and emphasizes the interest and utility of the study. *I papiri della Società Italiana*, in *Atene e Roma*, N.S., III (1922), 81-94. I have not yet had an opportunity of seeing a volume by G. MILLIGAN which, from a short notice in the *Times Lit. Suppl.* (Oct. 26, 1922, p. 691), appears to be a popular introduction to the subject of papyrology, and to contain a bibliography. *Here and There among the Papyri*. Hodder and Stoughton. Pp. xvi+180. 7s. 6d. nett. The same remark applies to a volume by J. POLITEYAN noticed in the *Times Lit. Suppl.* (Oct. 5, 1922, p. 633). It is there said that the substance of the work was "contained in a course of lectures given at Swanwick in 1916 during the annual Summer School of the Church Missions to Jews." *New Testament Archaeology: Discoveries from the Nile to the Tiber*. Elliot Stock. Pp. ix+258. 6s. nett. E. S. FORSTER has published a paper, originally a popular lecture to a society at Sheffield University, on the light thrown by papyri (1) on the language, (2) on the historical environment of the N. T. *The Papyri and the New Testament*, in *Expos. Times*, XXXIII (1921-2), 343-9. In this connexion reference may be made, very belatedly, to a Russian article by S. M. ZARIN on contemporary discoveries, papyri and inscriptions, which throw light on the N. T. *Sovremennuiga Otkrutiya v oblasti papirusov i nadpisel v ich otnoshenii k Novomu Zabyetu*, in *Khristianskoe Otnenie*, April, 1914, 430-67, May, 1914, 642-75.

P. VIERECK has published a popular account of the ostraca, which contains new and interesting material and includes three good photographs. He gives an interesting account of the discovery of ostraca for the Berlin Museums during Zucker's excavations at Darb el Gerza. *Ostraka*, in *Der Sammler*, XII (1922), 17-20.

Schubart's *Einführung* is reviewed by W. OTTO (*Hist. Zeitschr.*, CXXV, 3 Folge, XXIX, 482-5) and L. WENGER (*Deutsche Lit.-Z.*, 1922, 289-97), Coburn's *New Arch. Discoveries* by E. POWER (*Biblica*, III, 1922, 225-7), and Calderini's *Primavera* by D. BASSI (*Riv. di Fil.*, XLIX, 1921, 488-9), C. BARRAGALLO (*Nuova Riv. Stor.*, VI, 1922, fasc. 2), and A. CERNEZZI-MORETTI (*Lyceum*, Milan, IV, 1922, 7 ff.; the last two not accessible to me).

S. DE RIJCI has published another part of his comprehensive and admirably arranged bibliography. *Bulletin Papyrologique*, IV, in *Rev. ét. gr.*, XXVII (1914), 153-89 (covering 1905-12), XXXIV (1921), 80-112, 177-230, 275-336 (part 2, covering 1904-1912). The second instalment of P. M. MEYER's *Juristischer Papyrusbericht*, which, like the first (see *J.E.A.*, VIII, 1922, 100), is full of interesting matter and contains constructive criticism of various points, has appeared (*Z. vergl. Rechtsw.*, XL, 174-219), as also has a further instalment of L. WENGER's far-reaching review of juristic literature (*Quellen und Literaturbericht zur antiken Rechtsgeschichte 1917-1922*, in *Krit. Vierteljahrsschr. f. Ges. u. Rechtsw.*, 3 Folge, XX, 1-112). W. SCHUBART has also commenced a very useful bibliography of papyrological literature, excluding juristic works but including items which relate to literary papyri. *Papyrusforschung*, in *Sokrates: Jahrb. d. Phil. Vereins zu Berlin*, XLVII (1921), 141-66.

FR. PREISIGKE has published the final Heft (4) of his *Berichtigungsliste der griechischen Papyrusurkunden aus Ägypten* (Berlin u. Leipzig, Verein. wiss. Verleger, 1922), and deserves the thanks and congratulations of all papyrologists on the successful completion of his great task. He intends to continue it in future, bringing out supplements from time to time. A list of *Early Vellum Fragments in the Bodleian Library* by H. H. E. C[RASTER] (*Bodleian Quarterly Record*, III, 287-8) includes a number of fragments from Egypt, whose present whereabouts papyrologists may not always know.

The journal *Aegyptus* has started a new and most useful feature. This is a series of lists of papyri of various classes, giving in each case the formulae employed. The provenance, wherever possible, and date of the papyri are indicated. This first instalment, by T. GRASSI, deals with notices of birth and notices of death. The utility of these lists will be enormous, and Sig. Grassi and the editor of *Aegyptus* are to be heartily thanked for their undertaking. *Formulari*, in *Aegyptus*, III (1922), 206-11.

10. MISCELLANEOUS AND PERSONAL.

It is pleasant to learn that the first Heft of the *Archiv* is in the press; probably indeed it will have appeared before this bibliography. ZUCKER and VIERECK are, I learn, engaged on vol. VII of the B.G.U., while SCHUBART and KÜHN are working at vol. VI¹ of the same. Petrie discovered a number of papyri at Oxyrhynchus last year; a brief reference to them will be found in *Anc. Eg.*, 1922, 37 (for the Hebrew fragments see above, p. 105).

G. FERRARI, known to papyrologists by some editions of papyri, though he has not appeared in our field for several years, is now Professor at Siena. Perhaps I may here be allowed to refer to the fact that Wilcken on 18 December last celebrated his 60th birthday and was presented with a testimonial from numerous friends and admirers in Germany and elsewhere. Long may he continue to enrich historical studies by his learning and genius!

Obituary notices of Mitteis have been published by E. WEISS (*Erinnerung an Ludwig Mitteis*, Leipzig, Felix Meiner, 1922. Pp. 32; a lecture at Prague, 24 Jan., 1922), B. SCHWARZ (*Leipziger Tageblatt*, 29 Dec., 1921), G. FERRARI (*Arch. Giuridico*, LXXXVIII, 4 Ser., IV, 1922, 1-6), and P. DE FRANCISCI (*Aegyptus*, III, 1922, 82-3), and of Lesquier by P. COLLART (*Rev. Belge*, I, 1922, 410-16) and E. B[RECCIA] (*Bull. Soc. Arch. d'Alex.*, N.S., v, 96-8). A special memorial volume has appeared in honour of Nicole. This, edited by C. BERNARD (*Jules Nicole 1842-1921*, Genève, Ed. *Revue Mensuelle*, [1922]. Pp. 79. Fr. 4), is a composite work, to which many scholars have contributed (reviewed *Journ. Hell. Stud.*, XLII, 1922, 129). An obituary notice by V. MARTIN has also appeared in *Aegyptus* (III, 1922, 197-205). Lastly, a memorial oration on Diels by WILAMOWITZ-MOELLENDORFF appears in *Stzber. Pr. Akad.*, 1922, civ-cvii.

Finished 26 Jan., 1923.

¹ Now (March) published, but I must reserve a further notice of it till next year.

GEORGE EDWARD STANHOPE MOLYNEUX HERBERT, FIFTH EARL OF CARNARVON

By J. G. MAXWELL

To those who knew him intimately, the late Earl of Carnarvon was a man of extraordinary and versatile intellect, who, had it not been for his dislike of publicity and the methods of modern politicians, would undoubtedly have made his mark in politics. His devotion to his country was only equalled by his deep admiration for her old traditions of honour and integrity, and his keen intelligence and shrewd judgment marked him out as a leader of men. He was moreover a sportsman, and took the deepest interest in his racing stable and all matters connected with the Turf; a fine shot and an enthusiast concerning all our national sports.

His health, however, obliged him some years ago to seek warmer climates in the winter, and once he had visited Egypt, apart from his ever growing affection for the land of the Pharaohs, he became an enthusiastic student of Egyptology. Perhaps he cared most for its archaeological side, and some fifteen years ago he began excavating on his own account. As time passed on this fascinating subject took a stronger and stronger hold upon him, and although for some years after his association with Mr Howard Carter they found but little of importance to reward their untiring efforts, Lord Carnarvon succeeded in assembling a rare and exquisite collection of specimens of Ancient Egyptian art.

It was only in November of last year that, thanks to the indefatigable perseverance of Mr Howard Carter, Lord Carnarvon made his wonderful discovery of the Tomb of Tut'ankhamūn, a Pharaoh of the XVIIIth Dynasty.

This tomb and its contents dated from the finest period of Egyptian art, when, owing to the apostasy of Akhenaten from the worship of the ancient Gods, the conventional forms of art as prescribed by the priesthood were abandoned and art pure and simple was given an untrammelled hand. Many, indeed most, of the objects that have so far been removed from the tomb are of a workmanship and beauty unequalled even in the time of the Renaissance.

The terrible tragedy lies in the fact that Lord Carnarvon did not live to see half of the wonders his long labour had unearthed, and he died convinced indeed that the body of Tut'ankhamūn lies within the great sarcophagus of blue and gold that fills the burial chamber, but without ocular proof of the fact; for there was no sacrilege to the dead, no hasty tearing open of a grave to discover the possible value of its contents. Lord Carnarvon left Tut'ankhamūn sleeping in his tomb as he had slept for some 3000 years, content to wait until the sarcophagi could be scientifically dealt with.

In Lord Carnarvon the Egypt Exploration Society has lost a great patron and friend, for its welfare was constantly in his thoughts. At Luxor shortly before he was taken ill he introduced me to Mr M^cIntosh, a well-known Australian, and, after we three had talked over the question of excavation in Egypt and our difficulties owing to lack of funds, Mr M^cIntosh very generously offered us his personal guarantee of £500 a year for seven years and moreover undertook to establish a branch of our Society in New South Wales and said

that he would be able to obtain an important accession to our membership from amongst the many who had kept affectionate remembrances of Egypt during the Great War and many others to whom "Egypt" is always a name of charm and mystery. This gave enormous pleasure to Lord Carnarvon and I think the last letter he ever wrote was to Mr McIntosh thanking him again for his generous promise.

His loss to Egyptian Archaeology and Egyptology is irreparable and to all it is a great sorrow that Lord Carnarvon should have died thus, in the zenith of his fame, when his name was a household word on the lips of nations—for alas he never saw his work completed. So it remains for us all and for posterity to carry it on in a manner worthy of his name.

NOTES AND NEWS

THE tragic death of the Earl of Carnarvon almost in the hour of the accomplishment of his long ambition has in the minds of most of us thrown into the background the importance of his amazing discovery at Thebes. Few outside Egyptological circles will realize what a loss our science has suffered in his death, for it was not his wont to boast of his services to it. The general public will note the passing of the discoverer of Tut'ankhamūn; the Egyptologist will mourn the loss of a true friend to Egyptology, an excavator of endless patience and perseverance, and a lover of all that was beautiful or praiseworthy in Egyptian art. We hope to publish either in the present number or the next an obituary notice of Lord Carnarvon with some attempt to estimate his services to Egyptology.

It is understood that the excavations will be continued next autumn under the same thoroughly competent staff of excavators and restorers as last winter.

Grave anxiety was felt during the past winter lest a change in the law concerning the division of antiquities between their finders and the Service des Antiquités should be altered in such a drastic way as to arrest, partially if not completely, excavation in Egypt. The danger has luckily been averted for the time being owing to representations made to the Egyptian Government by a large number of learned societies.

It is the intention of the Society to continue its excavations at El-'Amarnah during the coming season, though it is not yet certain in whose charge the work will be placed.

Professor Breasted and Dr Alan Gardiner have spent the winter in Cairo, where they have been engaged in making a corpus of the so-called Coffin Texts of the Middle Kingdom. These inscriptions, mainly written on the insides of wooden sarcophagi, are naturally of purely religious tenure and take a place intermediate between the Pyramid Texts and the New Kingdom Texts known collectively by us as the Book of the Dead. Their collation and interpretation should be of immense importance for the study of the development of religious thought in Egypt between the Old and the New Kingdoms.

Moret has achieved the distinction of being elected to the chair of Egyptology at the Collège de France, where he will enjoy much more freedom than previously in the matter of research and travel. Dévaud is now installed Professor of Egyptology in the Catholic University of Fribourg in succession to J. J. Hess.

It is intended to hold an International Congress of History of Religions in Paris early in October on the occasion of the Centenary of Ernest Renan. The Congress is to be organized into twelve sections, of which one is entitled Religions of the peoples of the Ancient East: Egyptians, Assyro-Babylonians, Phoenicians etc.

Miss Jonas has sent us the following note on lectures given for the Society during the past winter:—

On October 26th, 1922, Professor Newberry delivered the first lecture of the season for the Society at the Royal Society's rooms at Burlington House. His subject was "The

Archaic Period (Dynasties I—II); The Earliest Chapter of Egyptian History." This was followed on November 23rd by a lecture on "The Worship in the Aton Temple at El-'Amarnah" by Dr A. M. Blackman, who said that the liturgy of the Sun Temple at El-'Amarnah was an adaptation of the worship of the old gods, the main change being the dropping of all references to the old mythology, and the absence of a cultus image. Hence all toilet ceremonies were omitted, and the services consisted for the most part in the offering of food, drink, flowers, and perfumes, accompanied with the burning of incense, music and the chanting of hymns to the Sun God.

On December 19th Professor Newberry gave a special lecture on "The Valley of the Tombs of the Kings at Thebes." He showed excellent slides of furniture, etc., from royal tombs contemporary with that of Tut'ankhamûn. This lecture was so overcrowded, and so many persons were unable to obtain even standing room that Professor Newberry very kindly consented to repeat the lecture. Accordingly the small Central Hall at Westminster was engaged for January 11 (1923) and a charge was made for admission in order to cover the expenses. The demand for tickets was unprecedented and literally hundreds were again unable to gain admission.

The next lecture was given by Dr Hall at the Royal Society's rooms on February 2nd, the subject being "The World in the Time of Tut'ankhamûn," and again the demand for tickets was so great that the room was overcrowded and many would-be hearers turned away.

On March 2nd, Mr H. G. Evelyn White gave an extremely interesting lecture on "New Coptic and other MSS. Fragments from the Monastery of St Macarius."

For the last two years or more our lectures have been gradually gaining in popularity, and the recent wave of enthusiasm has brought Egypt so much to the fore that the question of seating accommodation has become a very serious matter. For many years past we have enjoyed the special privilege of holding our meetings at the rooms of the Royal Society through the generosity of its President and Council, and our Committee has always appreciated this honour fully, realising that it has had its share in adding to the attractiveness of our lectures. It will probably be necessary now to secure a larger hall for future lectures, which will unfortunately add to the expense, and it may be found necessary to charge admission to all those who are not members of the Society.

We have received the following note from M. Sobhy:—

In the year 1918 a note was published in the *Bulletin de l'Institut Français*, t. XIV, I F., entitled "Description d'un Crâne trouvé dans une tombe à Tell el Amarna," in regard to a skull of remarkable shape which the writer of the article was wrongly informed by the finder of the skull had been obtained from excavations at Tell El-'Amarnah, and as the general form of the head presented some resemblance to the portraits of King Akhenaton, the interest of such a discovery in this king's town was obvious.

Within the last few weeks, the skull has come into the possession of Dr D. E. Derry, who finds that a photograph of the head in question is reproduced in a paper by Dr L. Gattineau, describing excavations which he conducted at Medall, near Fashn in Upper Egypt, in a Coptic cemetery of the Fifth Century A.D., i.e. about 1800 years later than the date ascribed to the skull, and in a place nearly 100 miles from Tell El-'Amarnah.

The excavations of the British Museum at Ur of the Chaldees, begun by Mr R. C.

Thompson in 1918 and continued by Mr H. R. Hall in 1919 have again been resumed after an interval of four years by Mr C. L. Woolley, who has had as his associates in the work Mr F. G. Newton as architect and Mr Sidney Smith (of the British Museum) as Assyriologist, with for a time the further assistance of Mr A. W. Lawrence. The expedition was sent out at the joint expense of the Museum and of the University of Pennsylvania, which thus re-enters the Babylonian field in which it made so great a mark by the excavation (still unfinished) of Nippur.

The interest of the British Museum in Ur is one of long standing, since the site was first excavated for the Trustees so long ago as 1854, by Mr J. E. Taylor, then H.M.'s Vice-Consul at Basrah. He also was the first to excavate at the neighbouring mounds of Shahrein, the ancient Eridu, also for the Museum. It was natural that when in 1918 Mr Thompson took up the Museum work he should continue the excavations of Ur and Eridu. His attention was chiefly directed to Eridu: at Ur he simply made certain preliminary investigations and soundings. In the following year Dr H. R. Hall also devoted a good deal of attention to Eridu, but the major portion of his work was done at Ur, and his chief discoveries were made at Tell el-Ma'abed or Tell el-'Obeid, a small mound four miles west of Ur. Here he discovered the remarkable copper works of art of the early Sumerian period, the bitumen lions' heads with copper masks, etc., now in the British Museum, which were described and illustrated in the last number of the *Journal*. Dr Hall worked for three months at Ur, and among other remains discovered the temenos-wall of the temple of the Moon and what is now (since the further discoveries of the present year) thought to be part of the actual sanctuary of the Moon-god. This remains to be proved, but it is probable enough. Originally this building was tentatively identified with a palace (?) of King Shulgi (Third Dynasty of Ur; c. 2300 B.C.), named *Ē-harsag*, "the House of the Mountain." (See Dr Hall's forthcoming article on *Ur and Eridu* in the next issue of the *Journal*.)

During the present year Mr Woolley and his associates have made further excavations in this building, which have shewn that it was built by Ur-Nammu, the predecessor of Shulgi, and its plan has been re-drawn by Mr Newton in the light of his full architectural experience to replace that made by an officer of the R.E. for Dr Hall. The main achievements of the expedition this year however have been the discovery and excavation of another large temple-building within the temenos area, which was named *Ē-nun-mah* (or *Ga-nun-mah*), and the complete tracing and partial excavation of the great temenos-wall itself, which was discovered by Dr Hall. Mr Woolley has found, Mr Smith has identified from the inscriptions found, and Mr Newton has planned gates in this wall built or repaired by Bur-Sin II, in the time of the Third Dynasty, and by Cyrus the Persian. *Ga-nun-mah* goes back to very early times, and was added to or partly re-built by many kings, Ur-Nammu, Kudur-Mabug, Kurigatzu, and others, and then finally re-cast by Nebuchadrezzar. During the excavation of this temple, besides other objects (many being of the early period), Mr Woolley found two treasures of golden necklaces, one of the Assyrian, the other of the Sassanian period, which have already been published in the *Illustrated London News*. Many cuneiform tablets were found; and those of unbaked clay were for purposes of preservation and safe transport baked and coated with collodion in accordance with the usual practice of the Museum, now for the first time carried out in the field. The *ziggurra*t or temple-tower, first excavated by Taylor, who found the "barrel-cylinders" recording its re-foundation by Nabonidus, and then partially cleared (the south-east face) by Dr Hall, was further examined by Mr Newton for the first time from the architectural point of view, with results

that will no doubt prove interesting and important. In the *débris* outside the *ziggurat* Mr Woolley found a headless statue of an early king of Lagash, Enannatum II. The work at Eridu was not continued in 1923.

Mr Woolley is to be congratulated heartily on the success of his expedition, and it is to be hoped that the Museum and the University of Pennsylvania will be enabled to pursue their joint work without intermission.

An exhibition of copies of Theban tomb-paintings by Mrs N. de Garis Davies will be held at the Victoria and Albert Museum from about the middle of June onward.

A third volume of the Theban Tombs Series will shortly appear. It will be entitled *The Tombs of Two Officials of Tuthmosis the Fourth*, and will deal with the tombs of Amenhotpe-si-se (No. 75) and of Nebamûn (No. 90): it will consist of 37 plates in colour, line and colotype.

NOTICES OF RECENT PUBLICATIONS

Die Schlussklauseln der altbabylonischen Kauf- und Tauschverträge (Münchener Beiträge zur Papyrusforschung und antiken Rechtsgeschichte, Heft 4). By MARIAN SAN NICOLÒ. München: Oskar Beck, 1922. Pp. xviii + 244.

During recent years there has been proceeding among jurists a movement similar to that which followed the first great discoveries of Greek papyri in the last quarter of last century. The attention of legal historians, hitherto centred in Roman law, was attracted by those discoveries to the world of theory and practice which the papyri revealed; a world which, on the one hand, differed in many respects from the principles laid down by the Roman lawyers, and, on the other, exercised an important influence on the development of Roman law itself. Thus it has come to be recognized that some acquaintance with the papyrus evidence is essential to an understanding of ancient law and even to the comparative study of law in general. Before long, however, it began to be felt that the matter could not end there. The law operative in Graeco-Roman Egypt was not pure Greek law; it showed on every hand the influence of an older and alien system, that of the native Egyptians. Even Greek law itself cannot be fully appreciated without some reference to the law of the ancient peoples which preceded the Greeks in the development of civilization. Thus students of ancient law have come more and more to press their researches further back and, for that purpose, to acquire languages which, to the jurists of the older school, would have seemed outlandish indeed. On the one hand we find them (as in Partsch's collaboration with Sethe in the important *Demotische Urkunden zum ägyptischen Bürgerrechte*) studying the Demotic contracts, which, though often contemporary with the earlier Greek papyri, preserve, in the main, the native Egyptian law, and which, moreover, include not a few documents of earlier date than the Greek occupation; on the other hand they direct their attention to the older and far more numerous series of legal deeds from Mesopotamia, the product of a legal system not indeed directly connected with the law of the Graeco-Roman world but probably not without influence upon it and in any case so similar in many respects to Graeco-Egyptian law as to furnish invaluable help towards the understanding of the latter. Thus Koschaker, after winning a high place among writers on juristic papyrology, has latterly devoted himself almost exclusively to the Babylonian records; and now we find Prof. San Nicolò, well known by his work on the associations of Graeco-Roman Egypt and other papyrological studies, producing a monograph on the early Babylonian contracts of sale and exchange. More exactly, it is concerned with the concluding clauses of these contracts. Why the concluding clauses only, it may be asked? He does not indeed circumscribe his treatment quite as narrowly as the title might imply, but as a matter of fact the clauses in question are of special importance because in them lies the key to an understanding of the history and development of the sale in Babylonian legal practice.

One of the principal problems of early Babylonian law was the development of a method of sale on credit. For sale was in its essence, as so often with early legal systems, cash sale; in effect it was an exchange of equivalent values, and only on completion of the exchange was the transference of ownership accomplished. But as society develops the need frequently shows itself to defer payment, in whole or in part, of the purchase price, or to defer delivery of the article sold. San Nicolò shows that the Babylonian lawyers solved the problem in two different ways: (1) A real contract (*Realvertrag*) was concluded, in which the performance by the one party of his part of the transaction was made the basis of an undertaking by the other party to discharge his obligation. But this did not effect a completed sale; the party making the advance retained his right to the property transferred until the other party's obligation had been discharged. (2) The transaction was effected by means of a fictitious loan; the deferred obligation was treated as a loan to be repaid in the future. The analogy of Egyptian law (see e.g. Mitteis, *Grundzüge*, p. 171) will at once occur to the reader; but it must be remarked that whereas in Egypt a sale of real property necessitated two contracts, the "document for silver" and the document renouncing possession of the property sold, in Babylonia the two declarations were combined into a single contract.

It is to this development of the credit sale that San Nicolò attributes the presence in the contracts of what he calls the *Verzichtsklausel*, i.e. a clause in which both parties undertake, or one of the parties undertakes, not to bring any action concerning the contract or to revoke it. Though the transaction might be in substance a credit sale, in form it was a cash sale, and ownership was not completely transferred till the equivalent of the property or sum advanced had been received in full, so that it was open to the creditor party to reclaim possession of his property. Such a position was in practice inconvenient, and hence it became customary to include in the contract an undertaking not to attempt any reversal of the position created by it.

In the latter part of his book San Nicolò examines the clause (*Eviktionsklausel*) guaranteeing the purchaser against claims of a third party and the various problems which this raises or suggests. He shows that the vendor's warranty against defective right to the property sold was in origin delictual and therefore obligatory, but in course of time this delictual responsibility was transformed into one of merely civil law. It was therefore necessary to safeguard the rights of the purchaser, and this was done by recognizing the existence of a properly authenticated document of sale as a valid proof of his right to the property. Hence it became obligatory to convey real property and slaves (the rule did not apply to other moveable property) by means of a written document.

These are the principal subjects of San Nicolò's book, but there are numerous points of detail to which he devotes interesting and valuable discussions. Papyrologists will be particularly interested in the various resemblances and differences between Babylonian and Egyptian practice, which a scholar like San Nicolò is of course peculiarly qualified to bring out. He writes throughout with judgment and acuteness, and his intensive study of the problems dealt with produces valuable results.

H. I. BELL.

L'Art Égyptien. I. L'Architecture. Choix de documents accompagnés d'indications bibliographiques. Par JEAN CAPART. Paris: Vromant & Co. 30 francs. 1922.

Egyptian architecture is a direct expression of the natural conditions of the Nile valley and of the national life which came into being there. We need not look for ideal beauty, or for ideal architectonic form in it; but only for the beauty and the form which the most seductive of all primitive civilizations breathed into, or imposed on, its buildings. Nothing could be a more natural expression of human need or human hope; nothing could be less artificial, pondered, fantastic, or flimsy. Like the language, it arose suddenly as a complete and instinctive creation, never to be essentially altered so long as the national life remained true to itself. Like other branches of Egyptian art, it is essentially utilitarian. Beauty happens to it rather than is sought; or is the beauty of usefulness, efficiency, and strength. Yet faith breathes in it. As the love of life and of personality which the pictorial art of Egypt manifests confers on it charm and seductive power; so the aspiration after permanence and liberty gave a solemnity and a magnificence to its architecture which far exceeded all immediate needs. Yet both are so much a creation of a primitive mind that a severe simplicity reigns in them; as if both were the work of a giant in whom a childish directness, bordering on foolishness, is combined with the dignity imparted by a fearless trust in his strength.

We must beware then of being interested in the architecture of Egypt as something *bizarre* or cyclopean, of estimating a pyramid by its cubic contents, a hypostyle hall by the number of its columns, an obelisk or statue by its weight, a royal tomb by the numbers of metres which it penetrates into the rock. Doing this, we are as foolish as the Egyptian king who bragged mendaciously of sizes and weights beyond what the ancestors had ever known, being ignorant of the spirit in which his people lived, moved, and had its being. Let us be archaeologists by all means, drawing plans with meticulous care and dating the various architectural forms to a reign (though few have set their goal even so high); but beware lest the meaning of the great whole be obscured by its bulk or its historical interest. As was till recently the case with the language, we are not yet freed from the early obsession of regarding the latest phases of architecture in Egypt as the fullest expression of its latent possibilities, instead of as mean and morbid outgrowths or as hybrid forms. In these types decorative features have become pronounced, though this, particularly in the case of exteriors, is un-Egyptian in character; for the value of severe lines and plain surfaces can only be retained when the ornamentation merely adds broad colour and unobtrusive texture to the whole. The deeply incised texts of Medinet Habu, for example, in which each hieroglyph forms a strongly-marked recess in the stone, is a jarring cacophony in the rigid prosody of the style. Egyptian architecture is properly almost devoid of ornamentation with the chisel, except on its columns or in the monumental

script of its portals and architraves; but the mural surfaces of the interior may justly be covered with coloured designs, especially in the darker recesses of hypostyle halls and sanctuaries where a richly imaginative faith took expression in prescribed rites. Outwardly the temple should show merely the aspiration after preternatural durability and grandeur; hence the scenes of conquest and the figures of the gods on Ramesside pylons are a discordant innovation, due to a hypocritical and puerile vanity which had destroyed all sense of the beauty and eloquence of unadorned surfaces.

Did the Egyptian architect, even in his formal ornamentation, ever aim deliberately and definitely at beauty, or did this motive only assert itself sub-consciously amid the pursuit of structural and ritual ends? To aver the latter may be an over-statement, but probably it is not far from the truth. If the history of the Egyptian artist and his schools is almost hidden from us by the figures of strutting kings, ambitious officials, and their obsequious trains, a still thicker veil is drawn over the career of the architect, the conditions under which he learnt his business, or the way in which he turned it in a measure into one of the arts. Even as a builder ("superintendent of works") the Egyptian architect seems just to have fallen into the knowledge of his craft, and sometimes to have become an architect in the higher sense only by study, imitation, happy re-arrangement, and better balancing, of traditional forms. The builder probably worked independently of the artists who decorated his surfaces for him, and, if this lack of harmony, of artistic training in the one and of structural sense in the other, is theoretically unsound, it sometimes resulted in an unfettered perfection which deliberate collaboration would scarcely have compassed.

Apart altogether, then, from their influence on Greek or Syrian architecture, Egyptian buildings are worthy of an admiration not of the gaping sort. But, for the layman, the knowledge is hard to come by. The material is difficult of access, and what is available consists of show-pieces, debased examples, photographs of fragments or of picturesque ruins, or reconstructions which infect the primitive simplicity of Egypt with the prettiness of Paris, the pedantry of Berlin, or the amateurishness of London.

An authoritative and proportioned book on the subject can scarcely be written yet, though it might be attempted by such a one as Borchardt, who combines technical knowledge with the experience of one who has excavated and restored great monuments of the early period. In default of such a book, or anything resembling it, and with a view to such as cannot procure the larger work of Jéquier, this cheap and unpretentious volume of Capart is a real boon, and we have to thank him for having diverted a considerable portion of his incessant activities in this direction. Subject to a strictly limited expenditure of time and money, the project of presenting the public with a group of pictures representative of Egyptian architecture, and of guiding readers to the sources where more detailed information can be obtained, could not have been much better carried out. Of course under these severe limitations we cannot expect a perfectly balanced or complete illustration of all sides of the subject, or the best possible representation of those selected. We should all have omitted here and added there. But who could have provided a better half-sovereign's worth, or have furnished the layman and the journeyman Egyptologist with a more useful handbook by which to tide over the years till new researches can be utilized and a photographic expedition do for the architecture of Egypt what the Berlin Academy has done for its representations of foreigners?

Still, as M. Capart asks for helpful criticism, I may venture on a few of those querulous enquiries which come easy to the natural man, but, even when sympathetic, seem somehow to rhyme badly with good manners and real gratitude. First and foremost, I should have liked to have seen the total elimination of that malign genius of most cross-channel publications—the *dessinateur*. Why have not the illustrations in line taken from other works been reproduced *exactly*, instead of being re-drawn and ever worsened in the process (compare with the original, e.g., the capitals of columns in Pl. 103)? Why include Egyptian representations of their buildings when we know that they are unintelligible and misleading, except to the expert, and often even to him (in especial Pl. 112)? Why fill up these few pages with the pictures on Pls. 107, 148, 149, 151, which have no connection with architecture (the first a travesty anyway), and with others which have very little, such as the numerous stelae and Pls. 24, 30, 139? How advantageously these might have been replaced by photographs of the new-found "Osireion" at Abydos, some of the more ambitious rock tombs of Thebes (especially the oval chamber of Thothmes III), or architectural details such as gargoyles, gateways, screen walls, pilasters, or by representations of the great hawks, the winding serpent on the ramp, the niches on the upper terrace, of Deir el Bahri! Should not "pillars" be read for "pilasters" on Pl. 93, and why are the columns on Pl. 126 termed "*piers à surfaces arrondies*"? M. Capart might be allowed a breach or two in his self-denying ordinance of abstention from all theory; but the descriptive titles to Pls. 60 and 85 seem extremely hazardous, and quite incomprehensible to the layman.

In the perfectly adequate work on Egyptian architecture the full height of a column must be shown, pictures must be taken, if it is any way possible, from such a level and so directly that there is no distortion, and the setting of details must be indicated, so that, *e.g.*, a picture of the Paris obelisk will be accompanied by a photograph of the sister monument in place before the pylons of Luxor. This ideal volume, when it comes, will be full of reconstructions perhaps, but fancy will be very severely controlled in them. I think that in such cases models should be made to scale, given a proper background and atmosphere, and photographed. What could be done in this way has never been really tried. But meanwhile the public should encourage M. Capart to do still greater things by quickly buying up this very useful edition.







N. DE GARIS DAVIES.

A History of Egypt. Vol. I. From the earliest kings to the XVIIth Dynasty. By W. M. FLINDERS PETRIE. Tenth edition, revised. Methuen, London, 1923. Price 12/- net.

There are doubtless few of us who do not more than once in a week consult Professor PETRIE's *History* as the most rapid means of getting at some particular piece of information. Though (*pace* the notice on the cover) the book can never be of much use to the general reader, it is, in conception at least, a valuable work of reference. Such a work should satisfy three conditions. It should be strictly accurate, it should be up to date, and, even if not entirely non-controversial, it should avoid dogmatism and should carefully distinguish between probability or possibility and certainty. We cannot in justice say that this volume conforms to any one of these conditions. Despite the fact that it was first published nearly thirty years ago and is now in its tenth (revised) edition, it is full of errors which should never have passed a second edition, as will be abundantly illustrated later. Although it is so far up to date as to include the Old Kingdom finds at Byblos it makes some serious omissions, and the writer does not display quite the acquaintance with the works of foreign excavators and scholars which we have a right to expect of him. The "student" for whom the book is avowedly intended ought to be told when several divergent views are held by scholars on a particular question, and allowed to make his choice, perhaps with some gentle assistance. It is not enough that we should give him our own view without the least hint that others, whose judgement is of some value, think differently.

No scholar, however great, can afford to put out careless or hurried work. We all admire the boundless energy with which Professor Petrie, at an age when most of us would be only too glad to retire into the enjoyment of a well earned repose, astonishes us with publication upon publication. But we would assure him that he will do his science more service by limiting his quantity and keeping up his quality than by neglecting the latter in the very natural desire that the world should lose no fraction of the vast accumulation of his forty years of excavation and thought.

We do not ask for polished English in a book of reference, yet even the dry bones of history demand a decent garb of grammar and syntax. Professor Petrie has a way of throwing his words together into his sentences rather like pebbles into a hat, with an implicit trust in their ability and readiness to arrange themselves into intelligible English. They are sometimes, alas, undeserving of his confidence, and the result is often slovenly, occasionally irritating and rarely wholly unintelligible.

He has of late adopted a slightly new method in transliterating Egyptian names. All our methods are unsatisfactory, and this is little worse than any other. By all means let *a* be written for  and *o* for , but let us frankly admit that this is but a convenient compromise in which we write vowels for what are really consonants, instead of trying to justify the procedure by such sophistry as we find on p. vi. It is useless to try to deny that in certain cases, and those very frequent ones,  had the value *yod*. What, moreover, is the meaning of the words "without implying that it (*i.e.* the letter  or the vowel *o* with which it is here proposed to write it) is stronger than a deep velar *a*." How the strength of the consonant  can be compared with that of the vowel *a* it is not easy to see. The transcriptions here proposed are very inconsistently employed in the volume, even allowing for cases in which the author has retained an old spelling because it has become too usual to be abandoned. Thus on page 234 the same group  is once transliterated *khan* and once *khou*, and many similar instances might be quoted. In proper names containing Ra we find this element read sometimes at the beginning, sometimes at the end. Contrast Nub-kheperu-ra (p. 270) with Kheper-nub-ra (p. 148). Cuneiform equivalents have long since taught us which is correct.

The translations of Egyptian texts are by no means as good as they might be, and in the renderings into English of Egyptian proper names grammar and syntax are often completely disregarded. This could have been avoided by getting some acknowledged hieroglyphic scholar to look through such portions of the proofs as contained translations: the accuracy and value of the work would in this way have been greatly increased.

The following is a list of points which may be useful to the student in using the book, and which, we hope, may also serve the author as suggestions towards making the volume as accurate and as valuable as it might easily be made.

p. vii, l. 3. On p. 9 the engraving of the stone, here dated to the IVth Dynasty, is attributed to the reign of Userkaf, a king, according to p. 81, of the Vth Dynasty (*cf.* p. 2). Which are we to accept?

pp. xii to xvi. This list of abbreviations is an obvious necessity, but is compiled in a most unsatisfactory manner. In a list of this kind the full and accurate names of the books are needed. It is true that scholars will recognise most of them even in the garbled and contracted forms in which they appear, but the student and the librarian will be constantly puzzled. What, for instance, is the difference between Aeg. Inschriften, Berlin, and Berlin Inschriften? Foreign words are very incorrectly printed; there are at least eight mis-spellings in German, and several in French. There are also omissions, *e.g.* P.E.T., used on p. 131, G.Mus., used frequently, doubtless for Gizeh Museum (why not call it Cairo Museum throughout?), T.P. (Turin Papyrus of Kings), used many times before the explanation on p. 227.

p. 2, ll. 18—20. Both Gardiner and Breasted have pointed out that some of the kings in the top row wear the double crown of Upper and Lower Egypt. *Journal*, III, 145.


p. 4, ll. 1—2. Sethe's explanation that all the animals represent the king himself is preferable, and at least deserves mention.

p. 4, l. 11. The number 184 rests only on Borchardt's hypothesis. The "student" should be told this.

p. 4, l. 18. There is nothing to prove that the supposed Kef is the name of a king.

p. 4, last six lines. Sethe has exploded the translations "King Ap" and "Ha, wife of the Horus Ka" (*Untersuchungen*, Dritter Band, pp. 32—33).

p. 5. King Ro is probably a fiction. At any rate more candour is necessary with regard to him (*op. cit.* pp. 30—31).

p. 5, last two lines. King Hati. The reading () is most doubtful. It is just possible that the cuttle fish *nḥr* was intended, which with the chisel (?) on the left would give Narmer.

p. 6. King Serq. Add the vase found by Junker at Tureh with the scorpion written in the *sekkā* under the Horus bird. There is no evidence that the seven-leafed rosette is "elsewhere equivalent to king."


p. 9, l. 5. Gardiner has shown that the name on the new Cairo fragment cannot be Semerkhet. *Journal*, III, 144.


p. 11, ll. 7—8. The words *ua she* could not possibly mean "chief of the lake," and in any case it is more probable that Gardiner is right in taking them as a personal name of the defeated chief. *Journal*, II, 74.

p. 11, l. 23. What is meant by "the grouping"?

p. 13. That Neit-hetep was the queen of Aha is simply an assumption, though a not improbable one. The student ought to be told so.

p. 13, last line but one. It is now some years since Gardiner showed that the reading of the metal

 is not *wšm* (*uasm*) but *dšm* (*som* in P.'s transcription).

p. 15, fig. 9. This figure is incomplete. Borchardt has pointed out that the signs  are visible in the photograph (PETRIE, *Royal Tombs*, II, Pl. V, 1) towards the right-hand bottom corner (*Die Annalen*, etc., p. 53, note 1).


p. 15. The evidence that Mer-nesut is the queen of Zer, consisting of an unpublished document in P.'s possession, was worth publishing here, however briefly. More than once in the volume short shrift is given to others who withhold publication of their finds.



p. 15. The suggestion made in the last two lines is absurd.


p. 16, l. 11. There is not a particle of evidence to prove that the arm is that of the queen.

p. 17. The finding in the tomb of King Zet of a single fragment of a stone vase inscribed Zeser under two *neb*-signs is hardly enough to prove that the *nebt*-name of Zet was Zeser.

p. 18. It has been more than once pointed out that the true reading of the name is Mert-neit.

p. 19, l. 10. For *onz* read *oz* (): there is no *n*. On p. 33 the same word is transliterated *ad*!

p. 20, l. 23. *setui* is a solecism: the feminine dual does not end in *ui* and the word  probably reads *hstt*. Moreover  reads *ant* or *amt*, not *at*.

p. 22, ll. 25—26. The translation of  as "the place of greatest protection" is perfectly impossible.

p. 23, l. 12. It is not true that it is always written *mer s*. The Sinai tablet for instance has the order *s mer*.

p. 36. For Hapenmaat read Nemaathap.

p. 42, l. 10. There is no word *renp* meaning "increase" in Egyptian. The root *rupl* means "to be (or to become) young or vigorous."


p. 43, l. 1. For A.Z. xxx. 4 read A.Z. xxx. 87.

p. 44, l. 8. The translation "Truth is from Apis" is impossible.

p. 49, l. 16. For "giving all power" read "endowed with all power."

p. 49, ll. 21—24. Surely the argument is not cogent. The scarabs might be of later date and their makers might have purposely used an archaic spelling.

p. 73, ll. 38—39. Let us be fair. A good deal has been published, though we agree with P. in wishing for more. See *Museum of Fine Arts Bulletin*, No. 50, April, 1911.

p. 77. Fig. 51 must be badly drawn, for the damaged letter at the end of the "Golden Horus" name can hardly be an , as it should be according to l. 13.

p. 92, ll. 24—25. Saqqara may have been the provenance given by the dealers or even the native finders, but the contents show that the material came from the funerary temple of Neferirkere^c at Abusir.

p. 97, ll. 16—17. Meaning? Should we read "around it" for "by that"?

p. 100, l. 5. There is not sufficient evidence to date the mask to this reign, which must only be regarded as a *terminus post quem*.

p. 112. Surely the translation "dwarf" for Deng (*dng*) is well established.

p. 113, ll. 29—31. Seeing that on the Sinai tablet in question the sign here read Mehti is followed by the title "Lord of the East," it is a little unlikely that the word should mean "The Northerner."

p. 125, penultimate line. The verb *khend* (*hnd*) means not "to go," still less "to lead," but "to tread on" and occasionally "to stride."

p. 129, last sentence. A surprising statement, surely not true of either the XIIth or the XVIIIth Dynasties, nor yet of the XXVIth.

pp. 134—135. The student might reasonably read these two pages without a suspicion that the period dealt with is one of the thorniest problems of Egyptian history, and that interpretations differing from that here adopted have been given by many scholars, including Breasted, Naville and Winlock. Surely some mention might have been made of the opinions at least of the last-named, based on recent excavations in an XIth Dynasty area.

p. 140, l. 9. Alas for simplicity: the steering oar is not read *hepu* but *hept* (*hpt*, feminine), and the "slight difference of readings" on which P. relies to distinguish the two names does not exist, at least in transcription. That the two kings are different is of course generally acknowledged.

p. 144, ll. 23—26. I can find nothing in any of the inscriptions of Year 2 to connect the *sed*-festival with Sirius' rising. In any case it is not easy to see how a festival which only occurred at intervals of some years could celebrate an astronomical event which took place every year.

p. 145, l. 4. It has now been pointed out many times that the word *ml* often means, as here, simply an expedition, not necessarily involving soldiers. The majority of the 10,000 were doubtless labourers: a few soldiers may have been provided as a safeguard.

p. 153. To the list of objects add in all probability the lapis lazuli cylinder bought by Lord Carnarvon in Egypt. See *Journal*, vii, pp. 196—199.

p. 161. The references to *Beni Hasan* and *El Bershek* need the volume number (I in the first case and II in the second).


p. 164, l. 5. Serabit is spelt Sarbut on p. 172 under fig. 102. The former is preferable.

p. 166. Well may the layman complain that Egyptian is an unattractive language so long as we publish such translations as this. It is based on Newberry's rendering, which was meant to be nothing more than a word for word translation of the Egyptian phrases, not a finished product for quotation. Such

a sentence as "I sailed up with 400 men of every chosen man of my soldiers" is merely the jargon of the class-room, and is unintelligible to the layman.

p. 168, ll. 7—12. Whatever doubts may have been justified ten years ago surely we may now accept the identification of Strabo's well at Abydos with the main hall of the Osireion excavated in 1913 by the Egypt Exploration Society. If P. believes that this is the well (the Egyptian, incidentally, says "lake" or "garden") made by Merry, why not enter it on p. 161 as a monument of Senusret I?


p. 173. If in l. 23 we read, as indeed we must, Sa-hathor we must also read Sa-mentu and not Mentu-sa in the last line but one.

p. 179, l. 31. For *setu* read almost certainly *khaset* (*ḫḫt*). In any case it would be *smet* or *smat* rather than *setu* if the word  (*smt* or *smit*) had been intended. Both references to NEWBERRY, *Beni Hasan*, in this paragraph need the addition Vol. I.

p. 180, l. 3. Read *heg khaset* (*ḫḫt ḫḫt*), prince of a foreign country.

p. 187, ll. 31—32. On the contrary, the construction of the inscription is not at all confused, though there are some abnormalities in the writing, but the translation given is very inaccurate.

p. 212, ll. 12—15. How the *kherp* sceptre can mean "*sekhem* power, as head of a clan or people," or exactly what this latter may be we are unable to perceive. The two words *hrp* and *šhm* are quite distinct in Egyptian.




p. 215. King Fu.ab.ra. The sign  has long been known to read *fw* and not *fw* or *fw*. In the last line read *hetep da nisut* for *nesut da hetep*.

p. 216, ll. 13—14. The translation "may Rē' gladden the heart" is impossible. The meaning is "Rē's heart is glad." P.'s whole sentence is highly elliptical and will puzzle those, and they are many, who are not acquainted with the nature of wish-scarabs.

p. 244, ll. 16—17. The meaning of this sentence escapes us. Does it mean that the reading of the last sign as *n* is uncertain, and that it might possibly read *tau*?

p. 245. In dealing with a king whose objects are so rare as those of Khenzer it was a pity to omit one, an inscribed tile from Lisht, see *Bull. Metropol. Mus. of Art*, 1921, November, Part II (*The Egyptian Expedition*), p. 18.

p. 250, last two lines. Surely what has been proposed is not to read Jacob as the name of a god, but as the 3rd Singular Masculine Imperfect of a Semitic verb, to which the *el* which follows would be the subject with the meaning "God." See DRIVER, *Book of Genesis*, p. lii, n. 3.

p. 259. The suggestion to treat the occurrence of the water-sign  at the end of the names of these kings as evidence that they were "sea-kings or pirates" of a Hellenic dynasty is hardly to be taken seriously. It is much more probably phonetic, and we have a good parallel in the name of Sinuhe's Syrian host Enshi the son of  , a name which is also found in Egypt.

The above list of corrections and suggestions, the fruit of a single reading, is by no means exhaustive, and we are bound to face the unpleasant possibility that close examination of the obscurer portions of the book, which would demand longer time and deeper research than we can afford, would reveal a similar state of affairs there also. Be this as it may, it is to be hoped that when a new edition is called for—and, having regard to present happenings, it will not be long—Professor Petrie will subject this early child of his to a most rigorous catechism before once more dismissing it on its travels.

We have spoken frankly, but we have done so in the interests of a science of which Professor Petrie was one of the founders and in pursuit of which he has always himself unsparingly criticised works which do not appear to him to have done justice to the cause in which they were written.

T. ERIC PEET.

Cours de Grammaire Égyptienne, à l'usage des étudiants de l'Institut Catholique, par l'Abbé Ét. DRIOTON, professeur (Institut Catholique de Paris, école libre des Langues Orientales). Nancy, Librairie Catholique Drioton et fils, 1922. Pp. xi + 188.

The want of a grammar in the French language representing the present state of research has been severely felt in recent years. In 1914, the late M. Lesquier, a brilliant student of Greek papyrology, endeavoured to fill the gap by a French version of Erman's *Grammatik*, recast in a peculiar way which fitted it more for the use of advanced students than of beginners. M. Drioton (who has succeeded to the

chair left vacant by the death of Philippe Virey) has here bound up the stylographed sheets which he issued to his students at successive lectures, adding a printed preface and table of contents, a glossarial index and an index of subjects. A really excellent introduction to the subject has thus been provided for his students. As must always be the case, the language of the Middle Kingdom, which was the standard of monumental hieroglyphic throughout Pharaonic times, forms the staple. Erman's *Grammatik* furnishes the basis of its interpretation, but the arrangement of the matter is wholly M. Drioton's, whose work is confessedly not a piece of original research although it shows a good mastery of the subject. In the early pages here and there are errors of reading of small importance which are silently corrected in the later pages, and the Index shows the author's final opinion with regard to each word.

It is to be hoped that M. Drioton will produce a work on the same lines for general use but in a more convenient dress. The stylographed writing is a sufficient guide for the audience in *visu voce* teaching, but it is pain and grief for independent reading. Apart from that, one may be allowed to suggest that the forms of the hieroglyphic signs should be more exactly reproduced. The practice of intelligent observance and drawing of these signs is a necessary training alike for the archaeologist and the student of the language.

F. LL. GRIFFITH.

Thoth, the Hermes of Egypt: a study of some aspects of theological thought in Ancient Egypt. By PATRICK BOYLAN (Oxford University Press, 1922). Pp. vii + 215.

The god Thoth, ibis and baboon, god of the moon and of wisdom, is an excellent subject for a monograph. Mr Boylan, who is Professor of Eastern Languages in University College, Dublin, has given us here the most elaborate study that has yet appeared in English of any single Egyptian divinity. The bulk of Egyptian material utilised by him is enormous; on the other hand, the Hellenistic developments of Thoth-Hermes and the Hermetic literature are outside the scope of the work. The material seems to be brought together chiefly from the texts with translations collected for the Berlin Dictionary, and the writings and monographs of earlier scholars such as Pietschmann and Turaieff. The former source, which has been put at the author's disposal, includes a vast amount that has not hitherto been made accessible. Chapter I discusses (rather weakly it must be confessed) certain antiquated and impossible derivations of the name of the god from Egyptian. For this I may be permitted to quote from a review which appeared last May in the *Literary Supplement of The Times*. "There is no Egyptian root by which the name of Thoth can be explained to the satisfaction of philologists; like the names of several other deities, in all probability 'Thoth' is to be derived from a locality, district, or tribe named Tehut, where the deity was worshipped, the parent-name being preserved to a very late date in that of the Tehut-nome of Lower Egypt. Thus in some extremely remote prehistoric period the name Tehuti (=Thoth) 'the god of Tehut' emerged as the appellation of the god; and in turn, perhaps before the age of Menes, the ibis-emblem of Thoth became the symbol of the Tehut-nome."

Subsequent chapters deal very fully with the different aspects and functions of the god, and catalogue his epithets, his shrines, etc. There are no illustrations, but hieroglyphic type is freely used, the printing having been done in Vienna.

As might be expected, there are statements in detail that stand in need of correction. For the benefit of non-professional readers of this book, and they should be many, I would point out two slips that may be seriously misleading:

p. 25. No representations of the judgement scene have been found as early as the Middle Kingdom, pp. 132, 168. Thoth-*stm* cannot mean "Thoth the hearer"; the spelling of the word *stm* is entirely against it. *Stm* is really a late version of the old title *im* for a kind of priest.

There are some curious Teutonisms in the book: "fell together with" for "coincided with," and "the dead" for "the dead man." It may be noted that students of mythology now have also at command Pietschmann and Roeder's long and closely packed article *Thoth* in Roscher's *Lexikon der Griechischen und Römischen Mythologie* (1920-1922).

F. LL. GRIFFITH.

Mémoires présentés à la Société Archéologique d'Alexandrie, tome premier, (premier fascicule). Mémoire sur les anciennes branches du Nil. By PRINCE OMAR TOUSSOUN. Cairo, 1922, pp. viii + 60, with 13 plates.

The object of this memoir is to identify the mouths of the Nile mentioned by ancient writers, particularly Herodotus, Strabo and Ptolemy, from the indications now existing in the actual levels of the Delta. Following the general principle that a branch of the river would naturally define itself by alluvial

deposits, Prince Omar Toussoun has been able to trace with substantial probability the courses of the ancient branches which have now been dried or reduced to mere canals, particularly the once important Canopic branch, checking his results by the levels given in the records of the Ministry of Public Works. The memoir, which is accompanied by a series of maps, furnishes a considerable amount of useful information and is a distinct contribution to the elucidation of the geography of the Delta.

The opportunity may be taken here of congratulating the Archaeological Society of Alexandria on its initiation of a new series of memoirs, the *format* and general style of production of which, if this first is a fair specimen, seem very satisfactory.

MEISSNER, Prof. Dr B., *Die Keilschrift*, 2nd ed. with 6 illustrations. (Sammlung Götschen, no. 708; Walter de Gruyter and Co., Berlin and Leipzig, 1922.)

A second edition sets a well-deserved seal of approval upon this excellent little volume, which first appeared some ten years ago. In its new form the range of its contents, compressed as they are into 112 small pages, is indeed remarkable and eloquent of the author's well-known mastery of his subject. A short chapter upon the decipherment of the cuneiform script introduces the two principal languages, Sumerian and Akkadian, of which it is the vehicle, and the remainder of the work is mostly occupied by outline grammars, specimens, and vocabularies of each. When it is added that some of the specimens are printed in cuneiform, that there is included an Assyrian sign-list, and finally a short survey of the main branches of the literature, it will be seen that Professor Meissner has accomplished a notable feat of compression, and that without sacrificing clearness. Were it not that the book has attained a second edition, one might, indeed, doubt whether it would not be at once too technical for the general reader and too summary for the student; but evidently there is a public for it, though as a popular work it would certainly be rather heavy going. Nevertheless, it is greatly to the credit of the publishers that, even for so cheap a little manual as this, they have not shrunk from the difficult and necessarily expensive printing which it involved.

C. J. GADD.

Historical Sites in Palestine, with a short account of Napoleon's Expedition to Syria. Lieut.-Com. VICTOR TRUMPER, R.N.R., M.R.A.S.

This book has doubtless in its previous editions given pleasure to hundreds, if not thousands, of members of the Egyptian Expeditionary Force. We are not in a position to say to what extent the various identifications of place names would stand the tests which might be applied to them by a specialist, topographical and philological, in the very new science of Syriology. Whatever the result might be the author's avoidance of dogmatism would exonerate him from much blame, since he is not afraid of the words "possibly," "perhaps," and "may be," so seldom, alas, seen in the pages of writers for the general public.

The preface warns us that "the descriptions are colloquial, not to say crude, in places." The warning is by no means unnecessary; even the tourist, that shocking Philistine who eats his shameless lunch in the sacred fane of Amon and Osiris, has an unreasonable preference for good English and is really hurt when he reads "trade booms do not interest historians like wars do." He sometimes even knows a little Greek, and if he does he will reflect, as he reads the amazing sentence which accompanies the dedication to Field-Marshal Viscount Allenby, that the construction μέγιστος πάντων τῶν ἄλλων, charming though it may be in Greek, is not a success when imitated in English.

Ausgewählte Denkmäler aus Ägyptischen Sammlungen in Schweden. PERH LUGN, Leipzig (Hinrichs), 1922.

Sweden is not rich in Egyptian monuments. Such as she possesses are almost entirely contained in two museums, that of Stockholm and that of Uppsala, the latter only founded in 1889. A selection of the contents of these two museums is here reproduced in admirable collotype plates, accompanied by well-written descriptions. The objects described are on the whole not very striking. The best is the Old Kingdom head on Pl. I, one of the finest examples of Egyptian sculpture. On Pl. X is an interesting piece of inscribed wall from the pyramid of Pepi I, showing alterations in the text. Pls. XXII and XXIII are an excellent illustration of the fact that an Egyptian sarcophagus which has, when seen as a whole, an admirable decorative effect may when examined in detail reveal third-rate work.

A large estate in Egypt in the third century B.C. By MICHAEL ROSTOVITZEFF. (University of Wisconsin Studies.) Madison, 1922. pp. xi+209. 3 plates.

Professor Rostovtzeff hardly needed to defend his decision to publish his studies on the Zenon papyri before the whole of the original documents had been transcribed and edited. There is a very substantial amount of material now available, and it is a great help to students to have a collation of the facts and a summary of the evidence, even though it be only of an interim nature, when done as thoroughly as in this paper.

Zenon, from whose archives nearly all the information used here is derived, appears to have been the right-hand man of the finance minister of Ptolemy Philadelphus: and, after his value had been proved by commissions both in Egypt and in Syria, he was put in charge of an estate which his employer had been granted some two years earlier at Philadelphia, and devoted all his time for the next ten years to the development of the property. On the death of Philadelphus, Zenon's master disappears, and he becomes a farmer on his own account. But this later period is only briefly noticed by Professor Rostovtzeff: his main theme is the ten years' stewardship.

The picture which we get is very full of detail, and is exceptionally interesting on account of the light which is thrown by it, through Professor Rostovtzeff's interpretation, on the policy pursued by the early Ptolemies for the Hellenisation of Egypt. Too little emphasis has usually been laid by historians dealing with this period on the completeness of the break with old traditions of government in Egypt which followed the Greek conquest. The passage from Greek to Roman rule, and that from Roman to Arab, were accomplished with comparatively little disturbance of the machinery of administration: but the case was entirely different at the beginning of the third century B.C.: and it is one of the special merits of Professor Rostovtzeff's work that he recognises this fact and its implications. He also brings out clearly that the founders of the Ptolemaic kingdom took up their work as heirs of Alexander and dealt with the problems of government on lines which often find their counterparts in other parts of the Hellenistic world under the Diadochi. The native Egyptian did not count in Egypt, and his ideas and interests were little regarded, until the intervention of Rome in Greece and the Near East upset the balance of Hellenistic power and through the withdrawal of Greek competition destroyed the incentive to Greek policy in the court of the Ptolemies.

Of course the Egyptian peasant remained unchanged, and, for the most part, so did his methods of cultivation. But the estate of which Zenon had charge was in the Fayum, which was largely recovered from waste by the Greeks, after extensive engineering works; and the correspondence gives a great deal of information as to the reclamation, with the necessary building and irrigation schemes. It also deals with the introduction of vine-culture, an essentially Greek undertaking, which had to be done under expert Greek guidance; similarly olive-trees and fruit-trees were planted; and another Greek industry appears in horse-breeding. The fellah seems to have been a labourer merely, working entirely under Greek direction.

Professor Rostovtzeff has been able to make use of a good deal of unpublished material, and it would therefore be rather risky for one who has not seen the documents to criticise his conclusions. But, so far as we are able to judge, his arguments are generally convincing and his survey comprehensive. Almost the only point where we would take exception to his statements is on p. 141, when he says that the exaction of rents in kind was due to the scarcity of money in Egypt. This can hardly be true at the end of the reign of Philadelphus: there had been very considerable issues of gold and silver under Soter, and the coinage of Philadelphus in gold, silver, and copper was one of the most extensive in the Greek world, and, so far as can be judged from finds, was in general use in Egypt. Possibly the tradition of payment in kind was strong enough among the lowest class of cultivators to make its continuance a matter of economic convenience.

We should add an expression of thanks for the excellent index compiled by Mrs Rostovtzeff.

J. G. M.

König Echnaton in el-Amarna. 16 Bilder von CLARA SIEMENS: Text von GRETHE AUER. Hinrichs, Leipzig, n. d.

Complaint is often made against archaeologists that they make little attempt to give life to the dry bones of their subject. The reproach is on the whole justified: many of us are so wrapped up in the precise form in which a damaged tomb painting is to be restored or the exact shade of meaning of a doubtful passage in a papyrus that we are apt to forget that the real end to which all our efforts ought to be

directed is the illustration of life as it was in the days with which we are dealing. The result is that the public is at the mercy of the imagination of general writers and illustrators who have neither the special knowledge to give accurate information nor the time to acquire it.

The authors of this book have realized this and have determined that concerning one period of Egyptian history at least, that of Akhenaten, the reproach shall be wiped out. They have clearly made a minute study of the German excavations at el-'Amarneh and of the tomb scenes to which we owe almost more of our knowledge of the place and its people. The result is a series of drawings which will stimulate the imagination of even the dullest and make the period live for him.

The text takes the form of a description of how a certain Senenmut, commander of a division of Ramesses II's army in the Kadesh campaign, outlawed from his city as a result of his failure on that occasion, comes to the deserted city of Akhetaten, where he finds a small colony of persons still living on in the worship of the Aten. He spends some time among them and is eventually strongly attracted by all that he learns of the character of the heretic king and his teaching, and by what he actually sees in the lineaments of the statues of the king and his family which from time to time are found buried in the ruins. This is an allegory. Like Senenmut the authors have been enchanted by all that they have learnt of the gentle ruler with his love of beauty in nature and in art and have been stimulated to picture for the modern world what they conceive to have been the conditions of life in the "Horizon of the Disk."

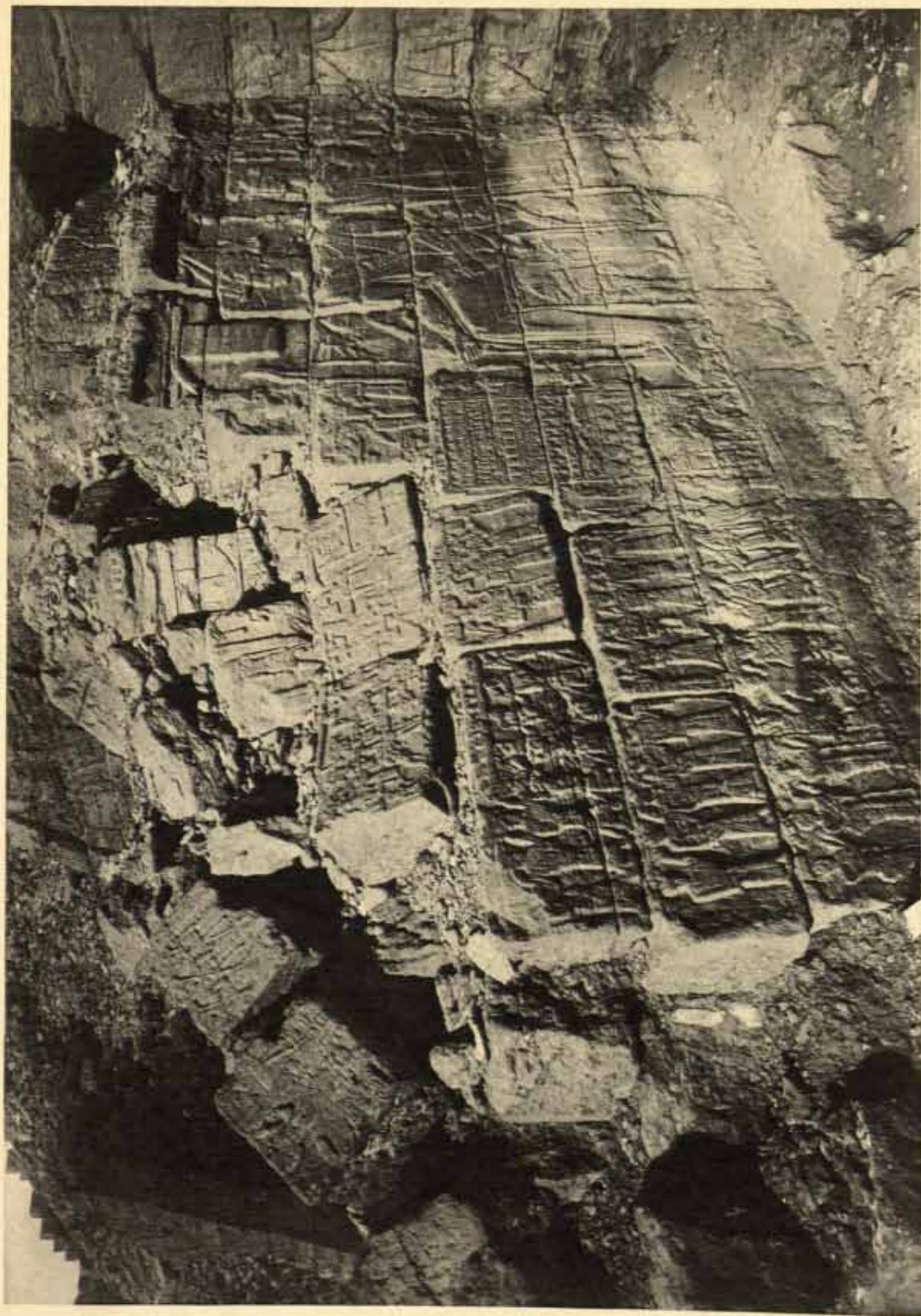
The artist has a delicate pencil, and despite occasional lapses in the matter of drawing the pictures are extremely attractive. We deplore a little the tendency to accentuate the abnormally shaped skull and profile of the king and his daughters, about which much nonsense has been written and still more talked. An exaggeration which we pardon in the very conventional *milieu* of an Egyptian altar-piece becomes merely irritating in a drawing on modern lines. The minor detail of the scenes has evidently been well studied, and the one criticism which suggests itself is that the dais on which the family are shown sitting at meat (there is no evidence that the dais was the place of eating) in an Egyptian house was always up against the wall-niches, not, as here, separated from them by a free passage. The picture of the royal couple wandering in the garden beside the lake might well be placed in front of the unimaginative reader when he reads Mr Woolley's description of the discovery of a few tree roots in their pits of mud among the sand. The last picture, in which the dying king watches, probably for the last time, the disk of the sun sinking behind the hills across the river is a clever scene of desolation, in which one almost forgives the appalling distortion of the emaciated face. The grilled window in the background seems to give the impression of a prison from which the soul of the dreamer is seeking to escape. Shall we ever know whether the king died thus in his chair or his bed or by the hand of the assassin?

T. E. PEET.

La vita pubblica e privata degli Ebrei in Egitto nell'età ellenistica e romana. By ALDO NEPPI MODONA. Estratto da *Aegyptus*, anno II, n. 3—4 e anno III, n. 1—2, pp. 49.

This pamphlet is practically confined to a collection of the references to Jews in Egypt which can be found in ancient writers and in papyri inscriptions. It is, we gather, to be followed by a more detailed study of the material which has been assembled, and the writer will doubtless then devote his attention to a more critical examination of the value as evidence of the various items of information recorded. In the meantime, his catalogue, if used with discretion, supplies a handy arrangement of the sources.

J. G. M.



BEGARAWIYAH.

Reliefs on the walls of chapel of N. XII, about 120 B.C.



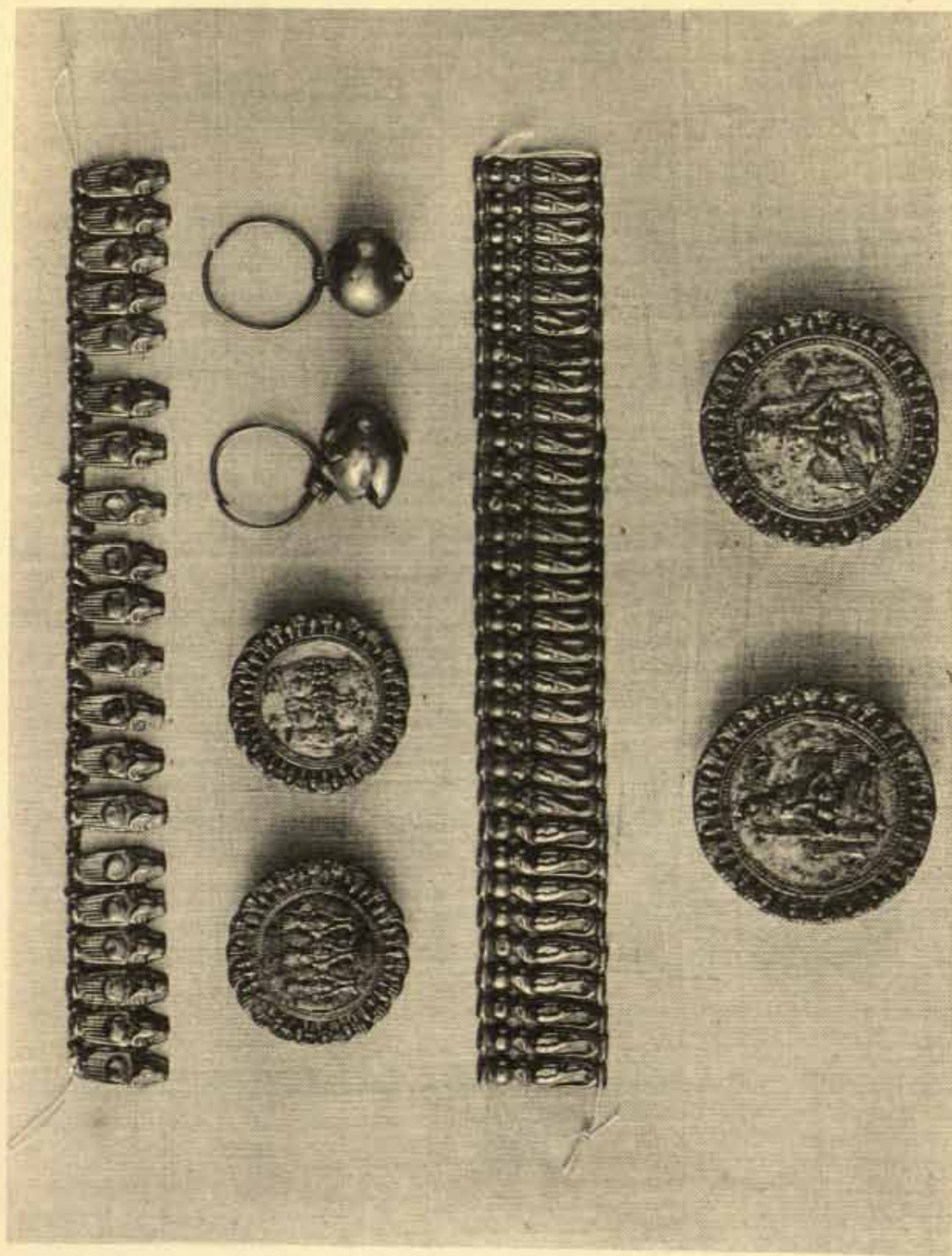
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2

BEGARAWIYAH.

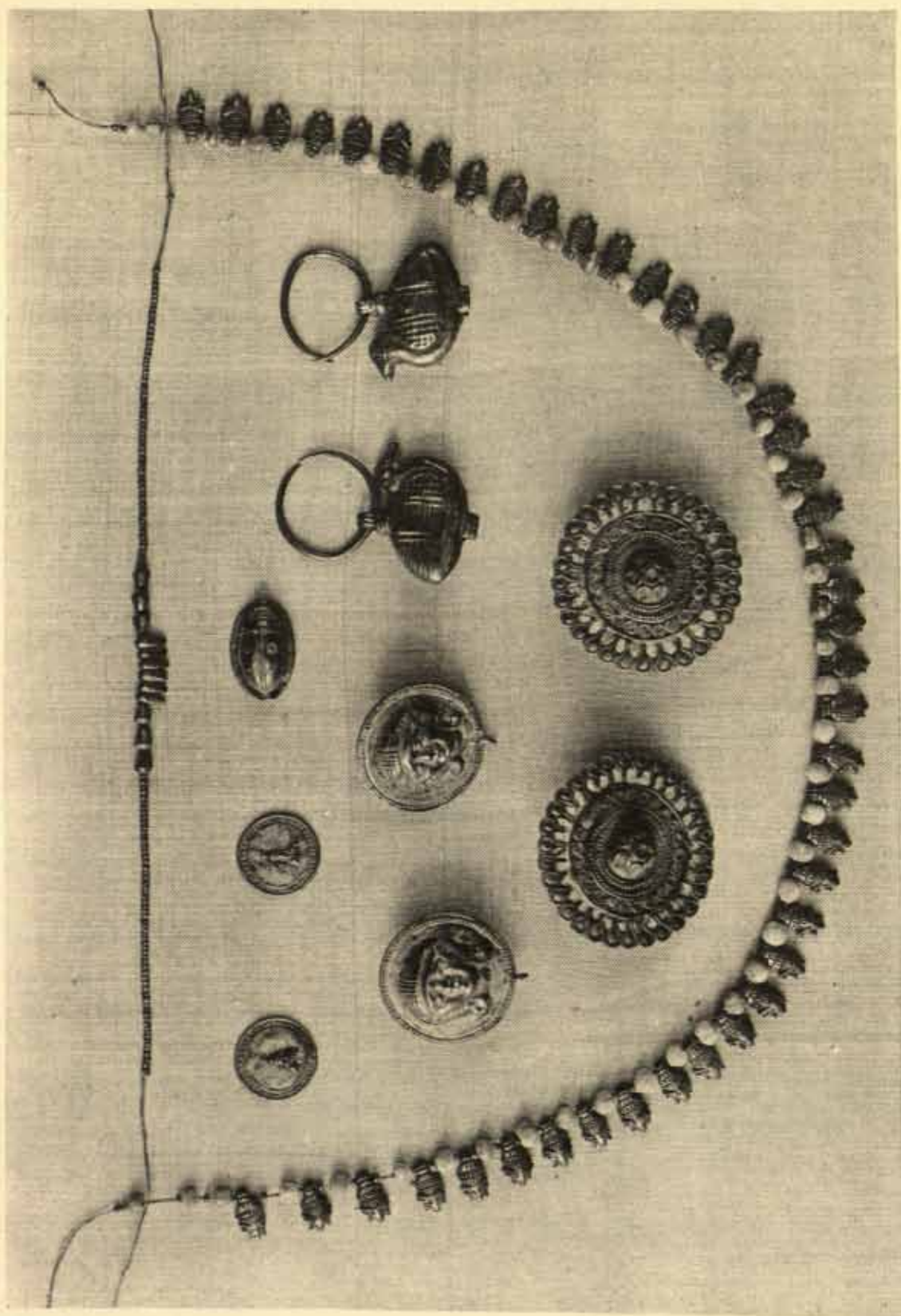
1. Reliefs on the walls of chapel of N.XXVI, about 340 A.D.
2. End of masonry bench in N.VII on which rested the mummy of King Ergamenes.



Above. Gold ornaments from Begarawiyah, W.125 : inlaid buttons, earrings and part of necklace.

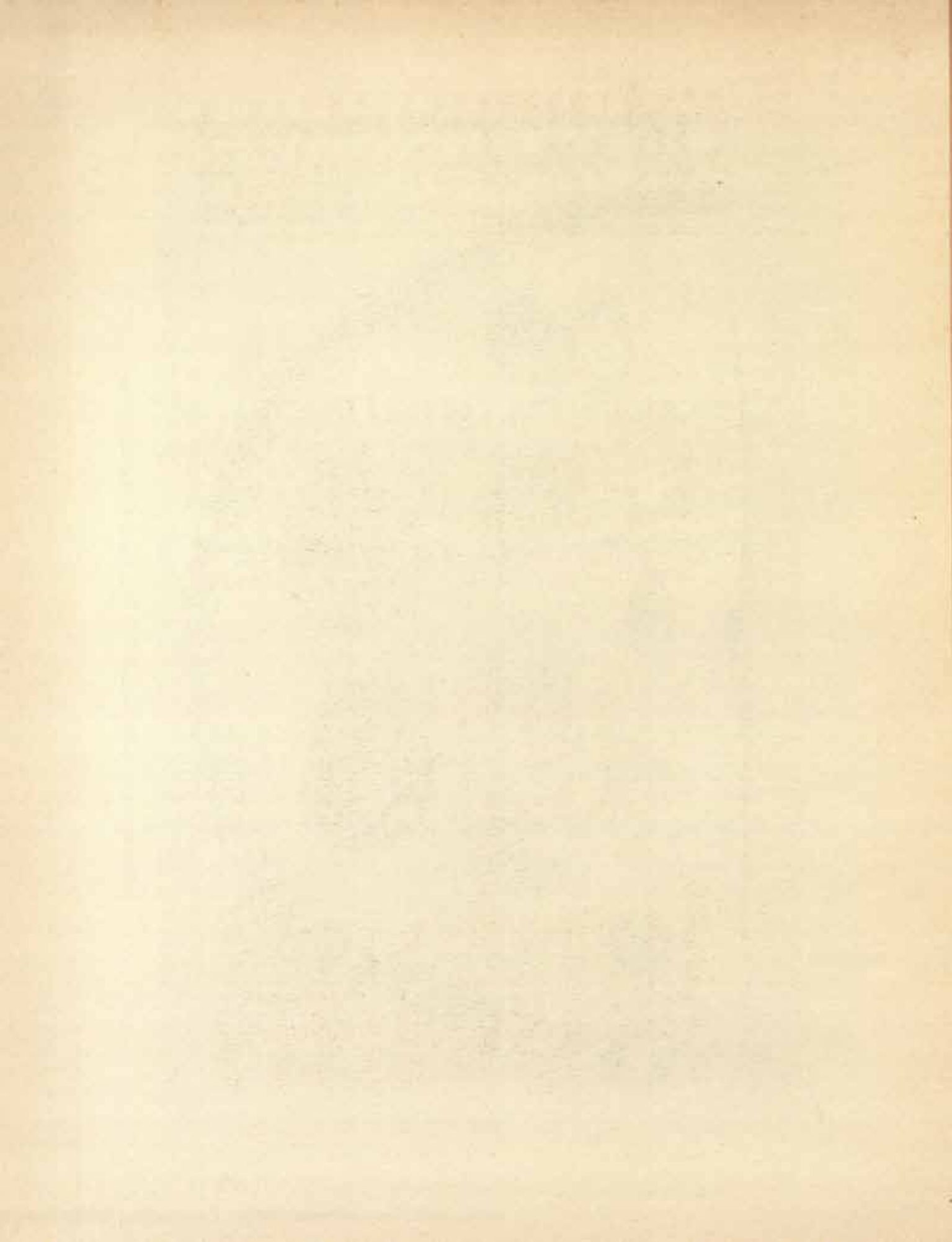
Below. Gold ornaments from Begarawiyah, W.127 : inlaid buttons and bracelet.

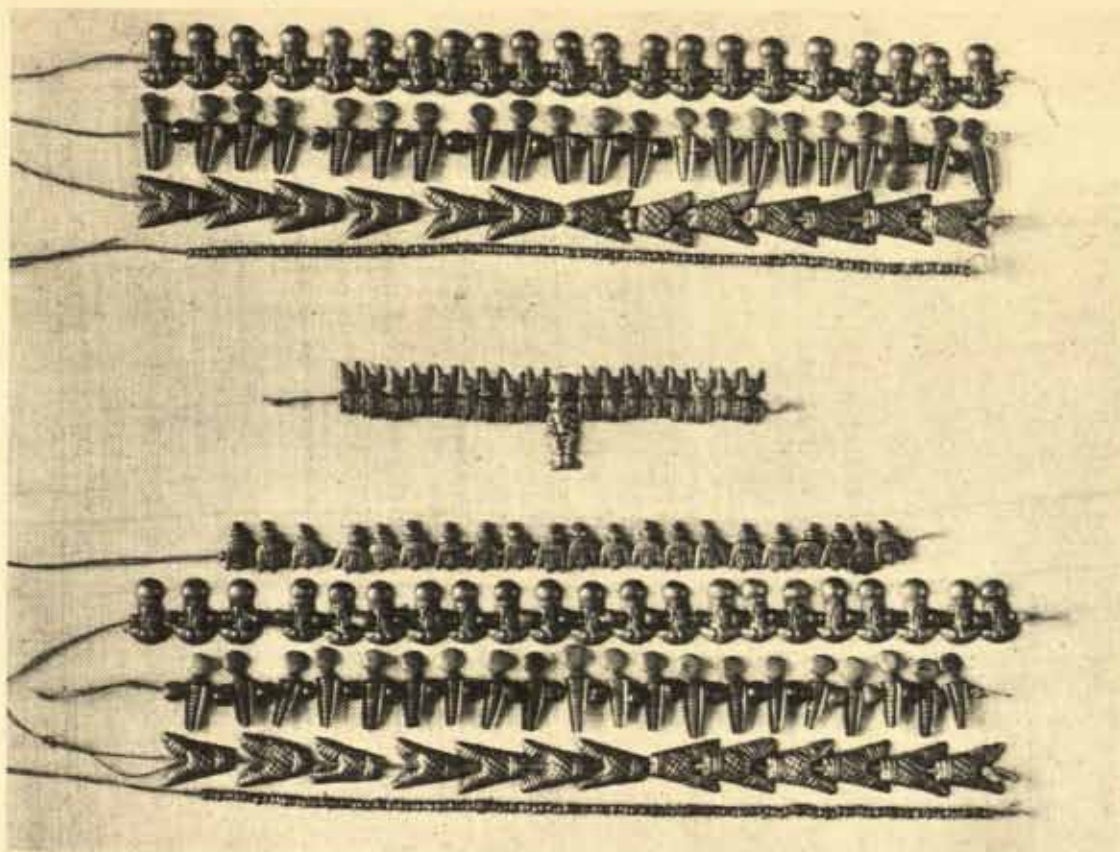
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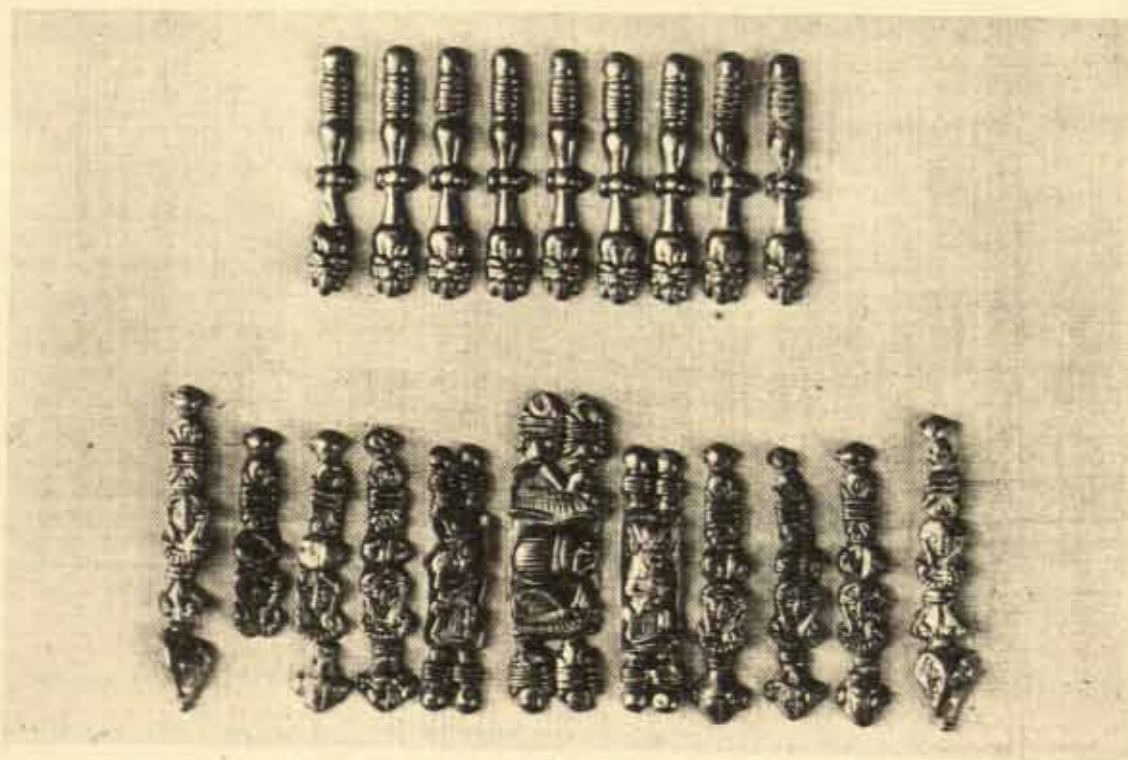
Gold ornaments from Begarawiyah, W. 179, about 1st century A.D.

Scale $\frac{1}{4}$





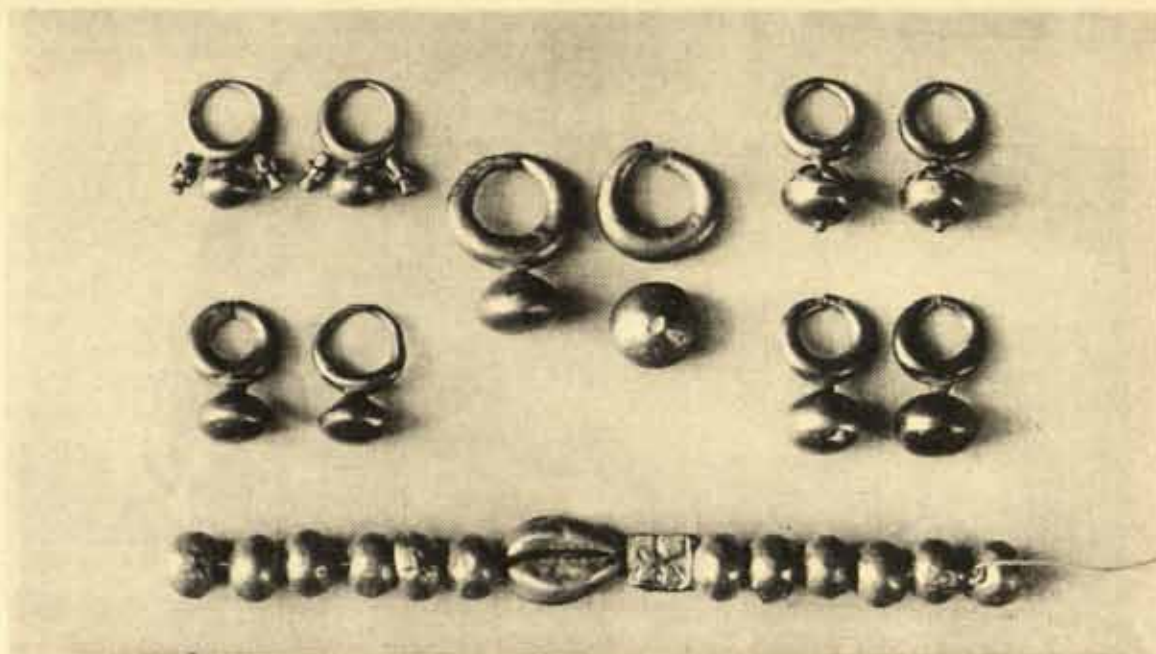
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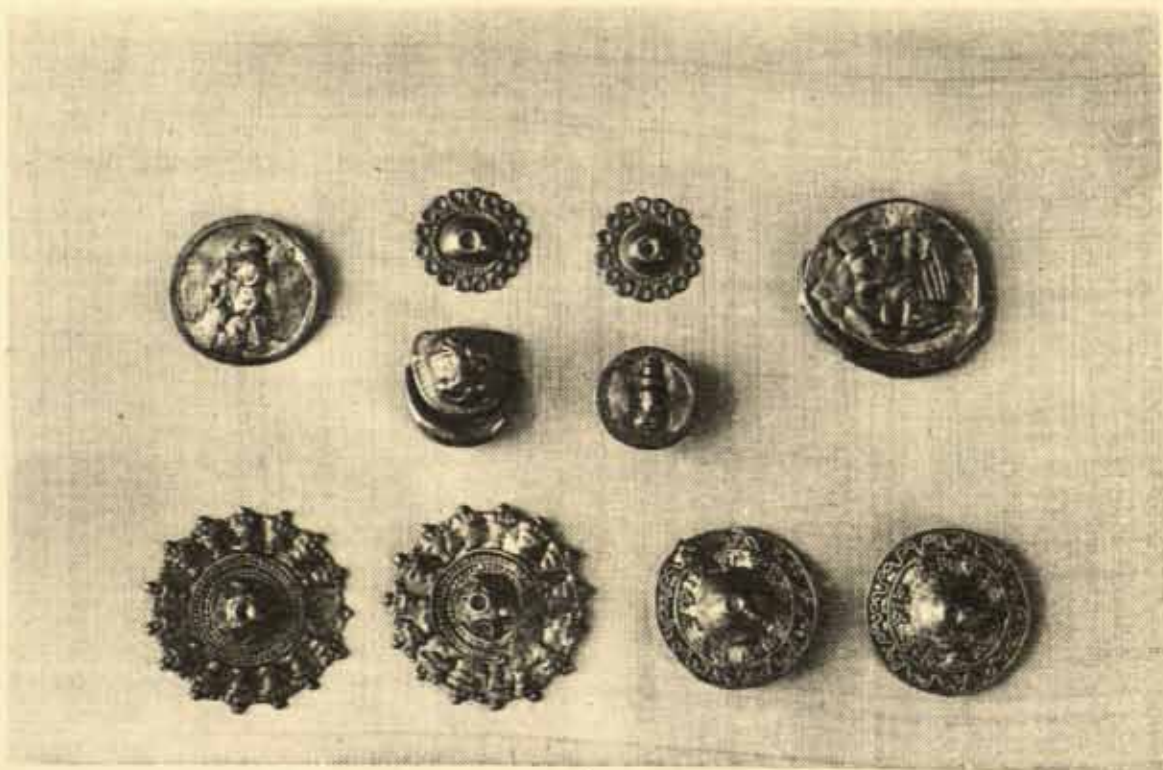
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1. Gold ornaments from Begarawiyah, W.179.
2. Gold ornaments: above, from Begarawiyah, N.XX, about 80 B.C.;
below, from N.XXI, about 60 B.C.

Scale $\frac{1}{2}$



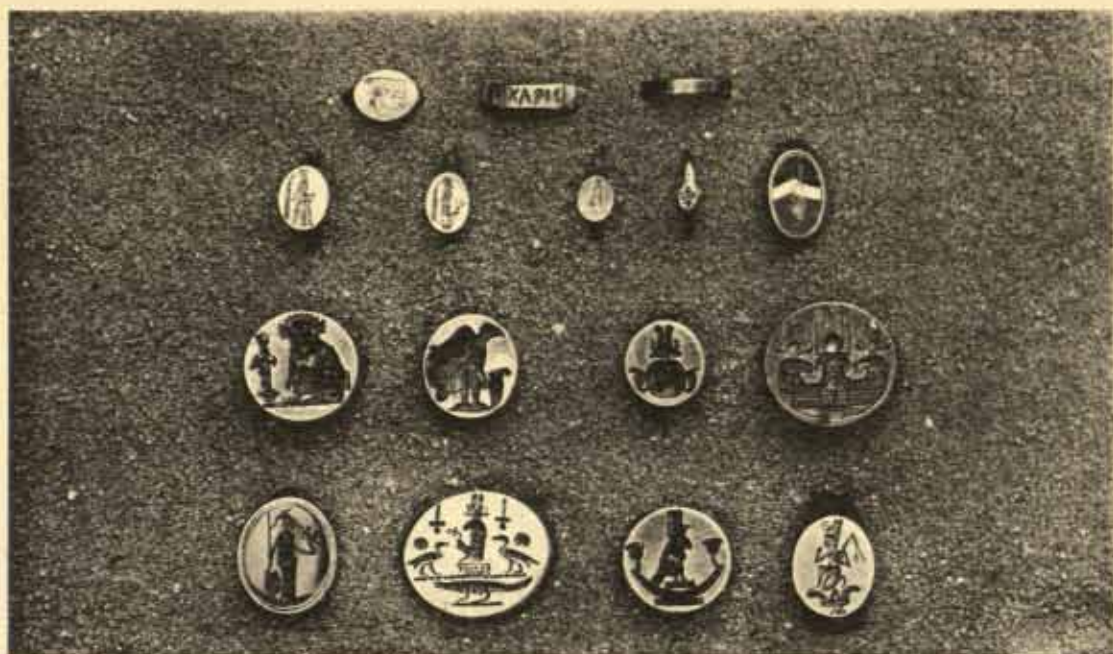
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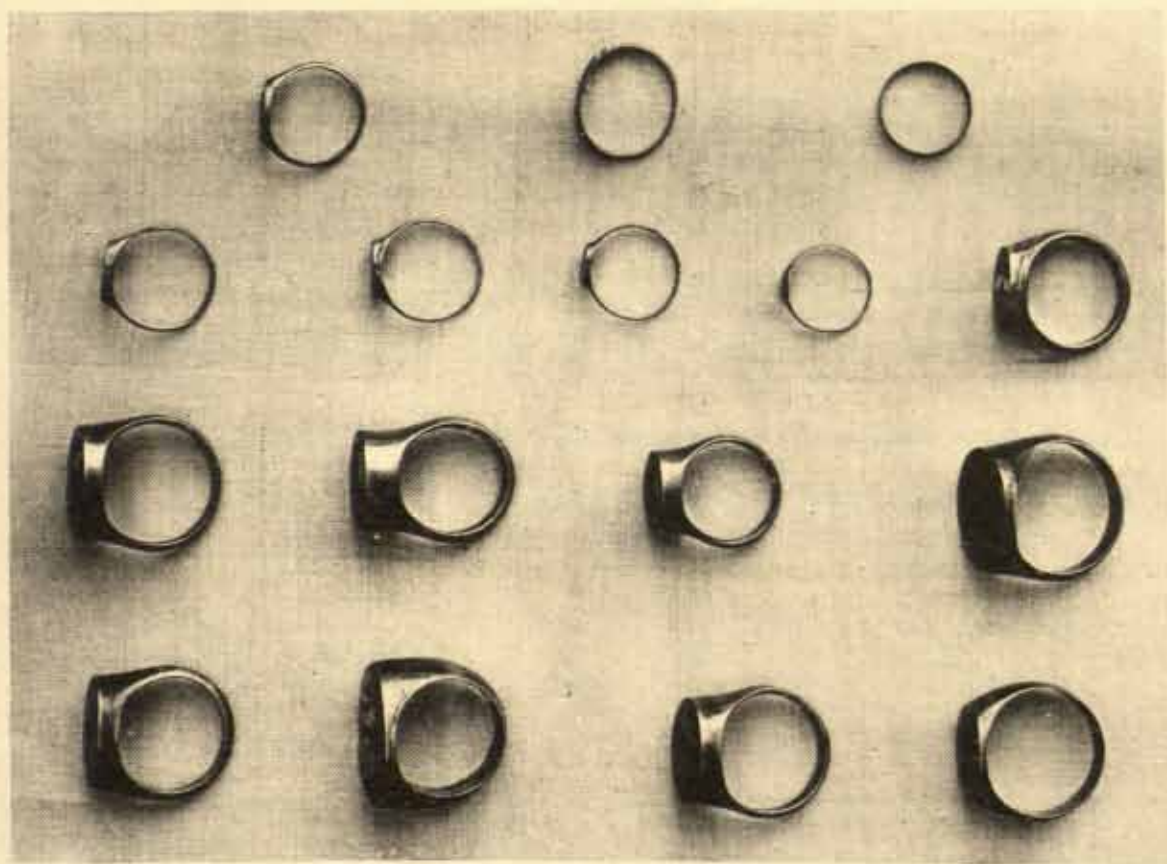
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1. Gold earrings from Begarawiyah, N.XXI, W.XVIII, and W.XXIV :
below, gold beads and an electrum cowrie from N.XXIV.
2. Gold buttons from W.106, W.111, W.138, W.140, N.XXII, N.XXVI,
and N.XXXIV.

Scale c. $\frac{1}{2}$

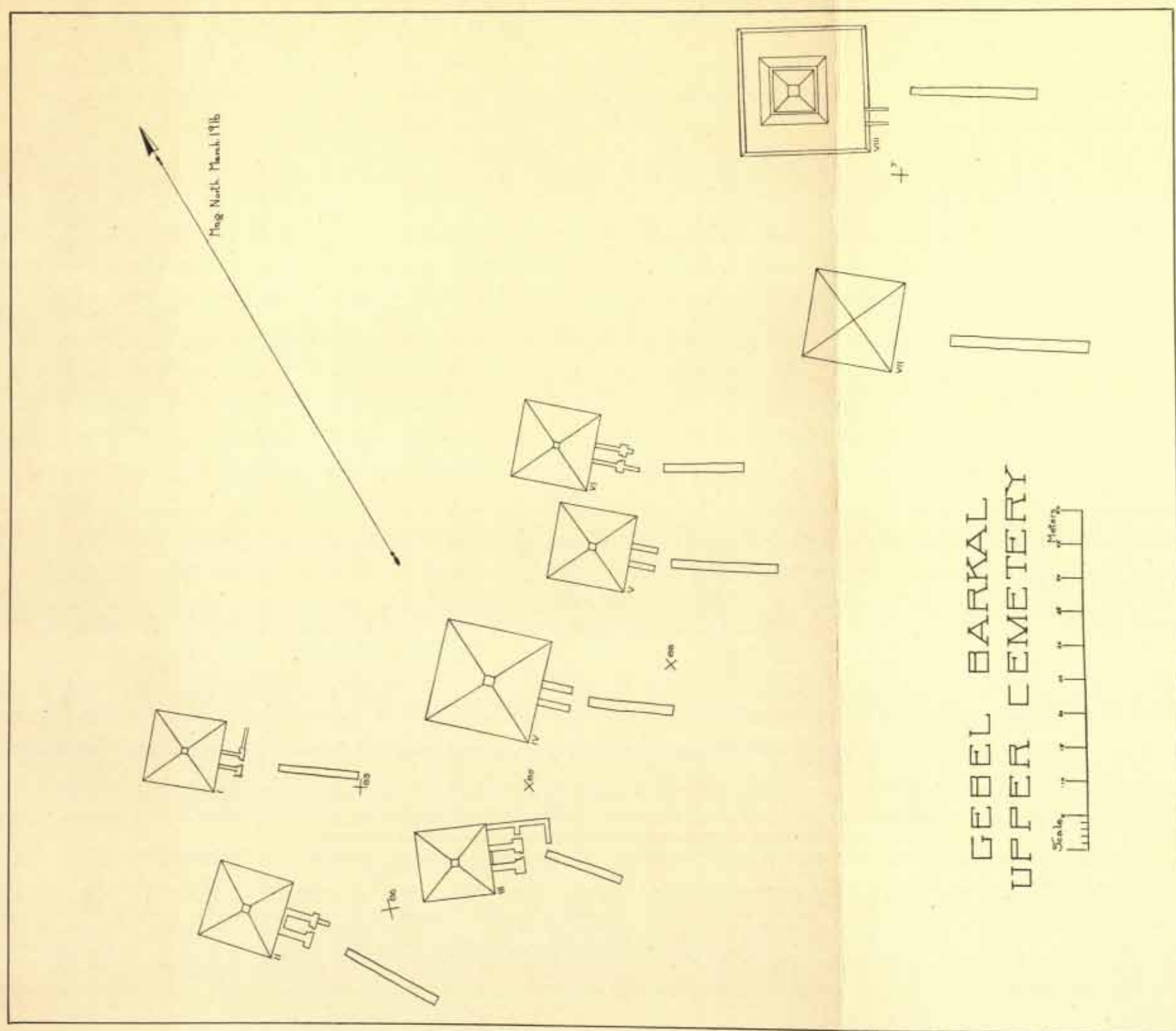


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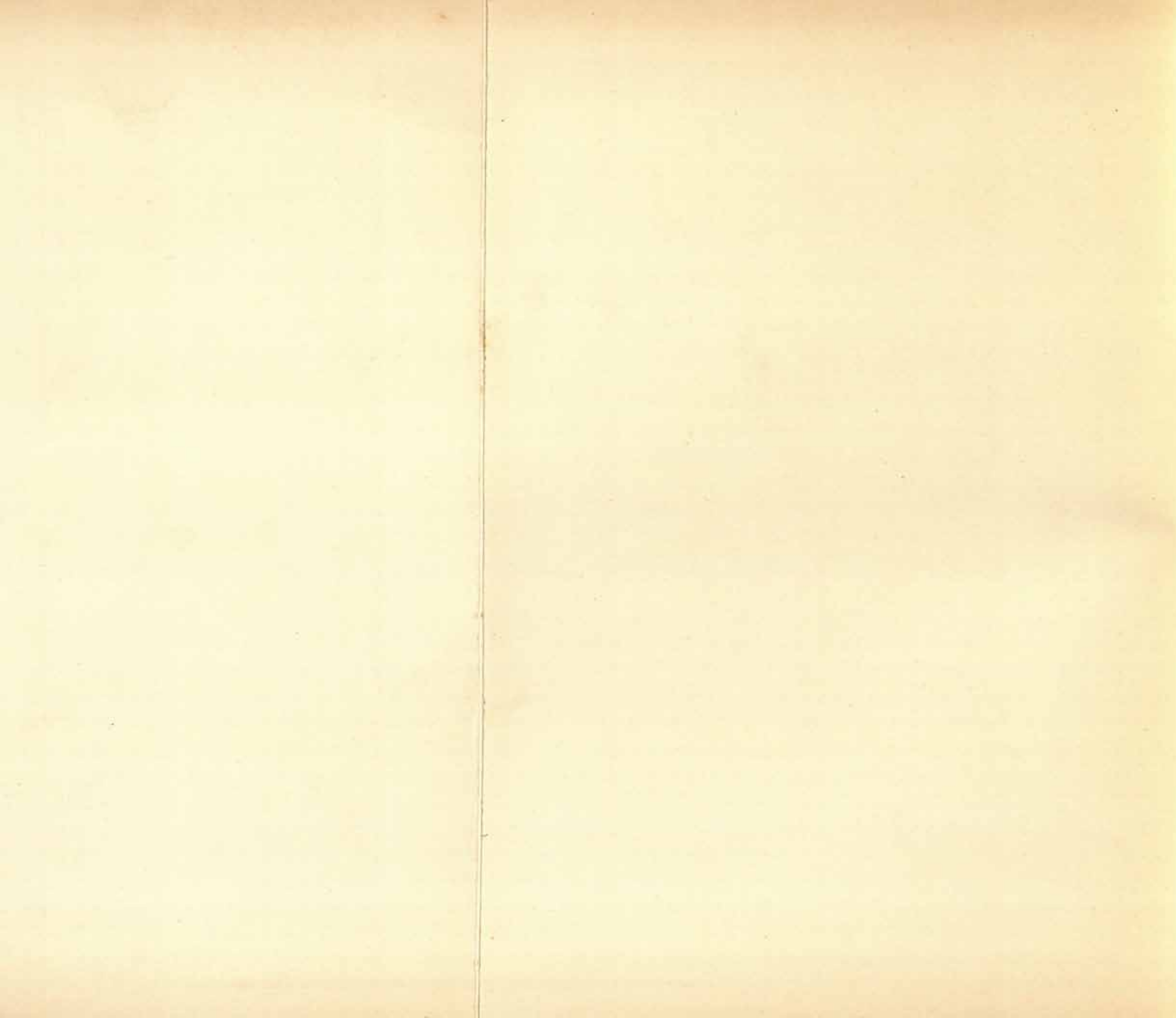


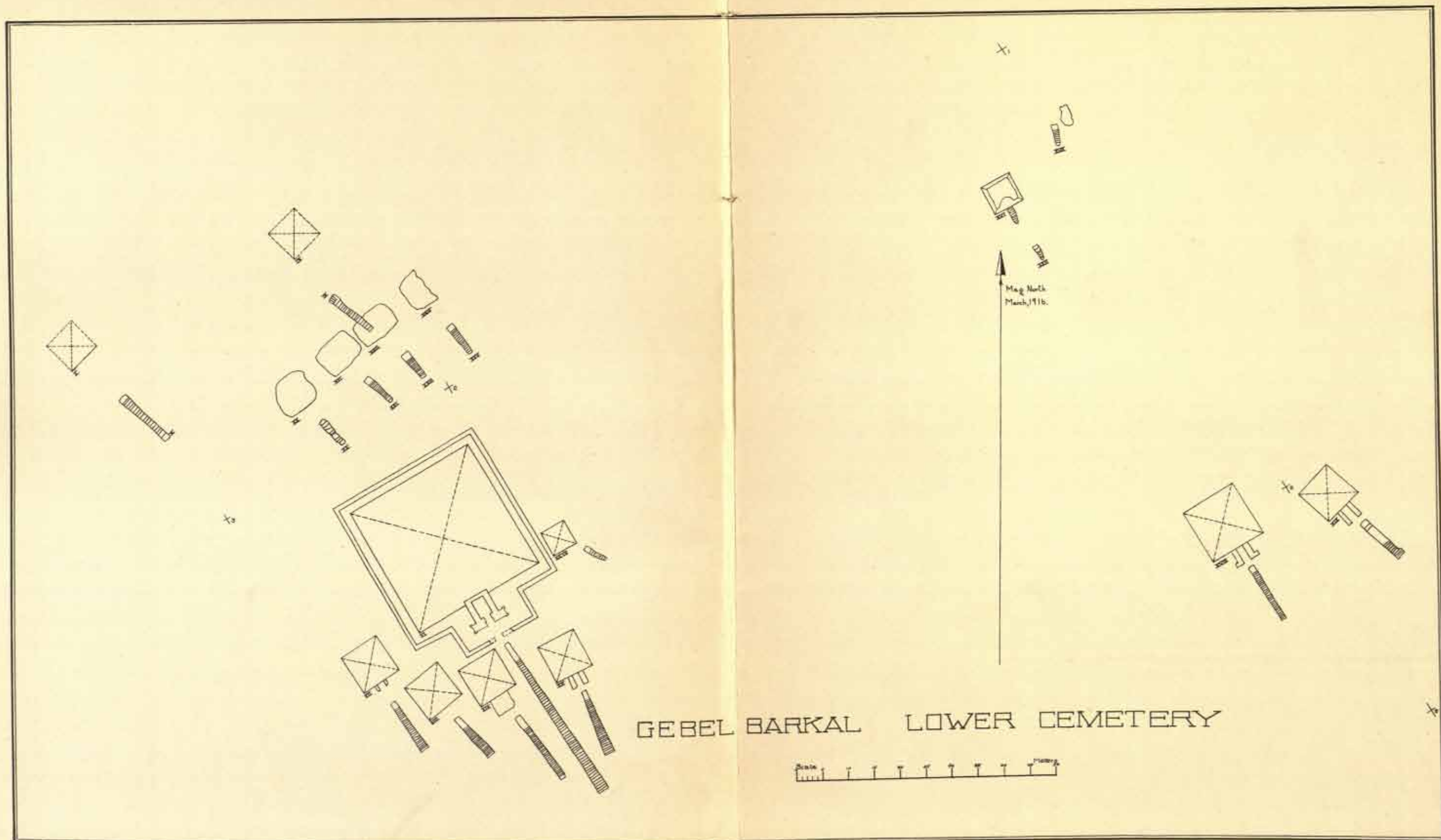
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Seal-rings of gold and electrum from Begarawiyah.
Date about 100 B.C. to 100 A.D.
Scale $\frac{1}{2}$

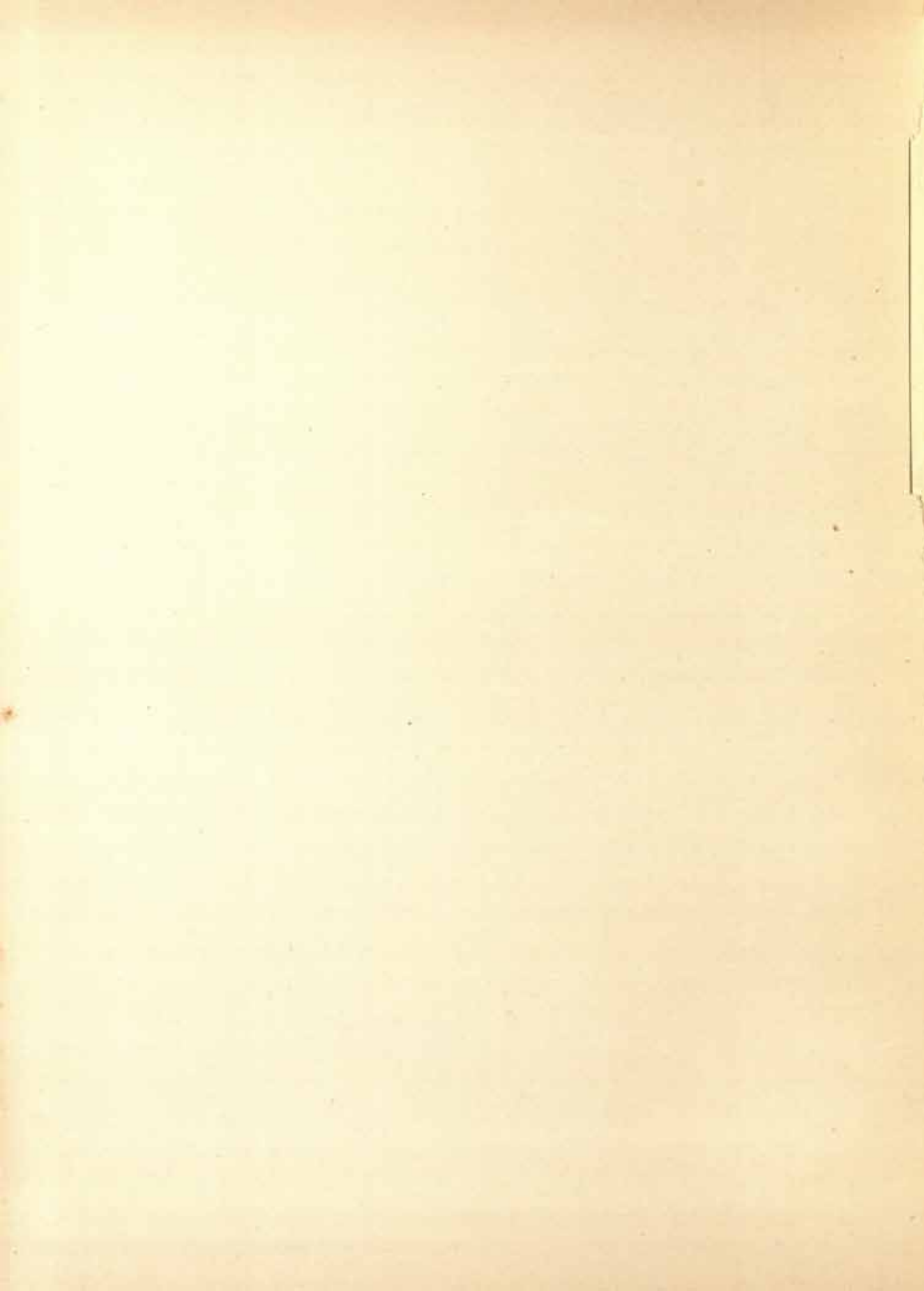


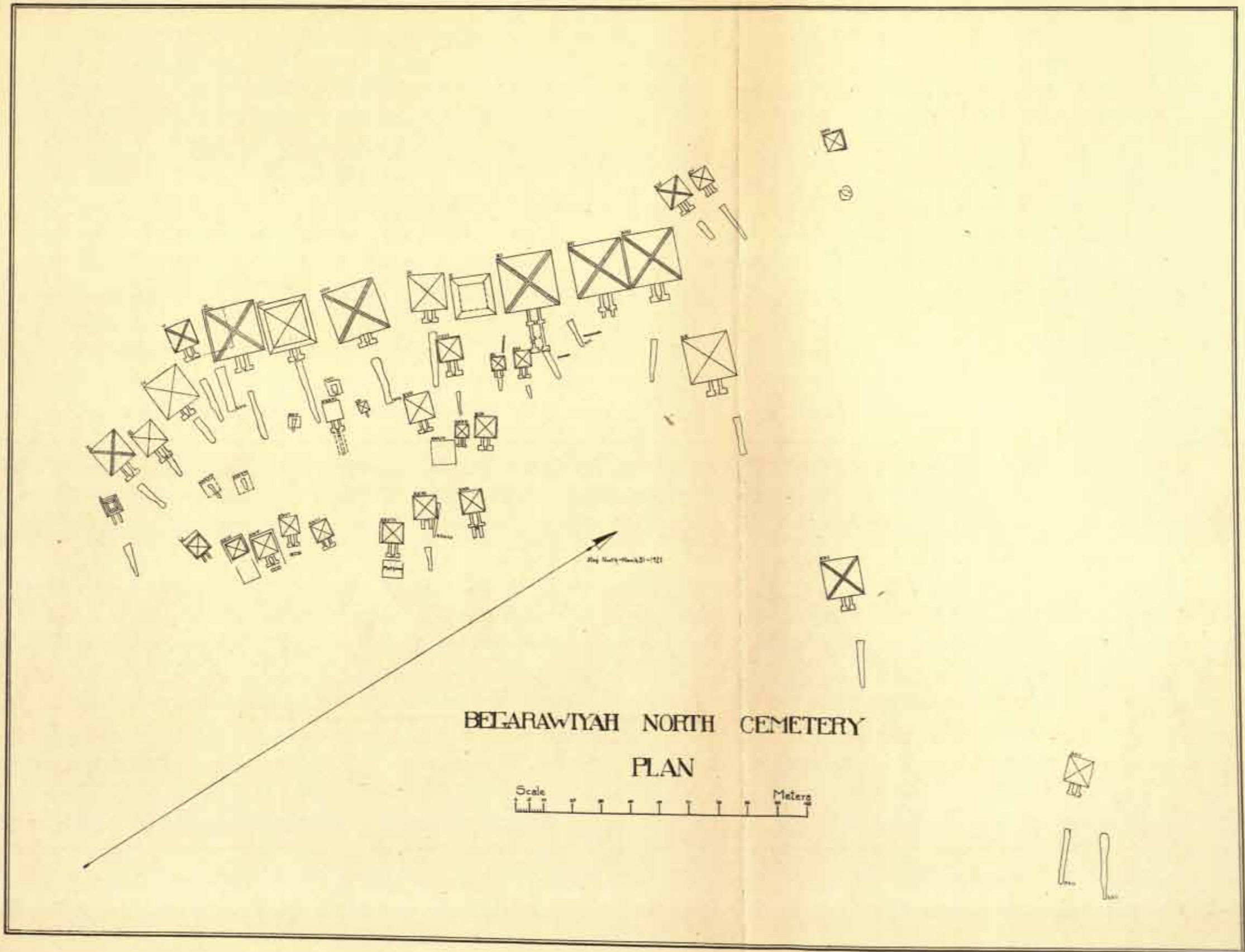
PLAN OF THE UPPER CEMETERY, GEBEL BARKAL





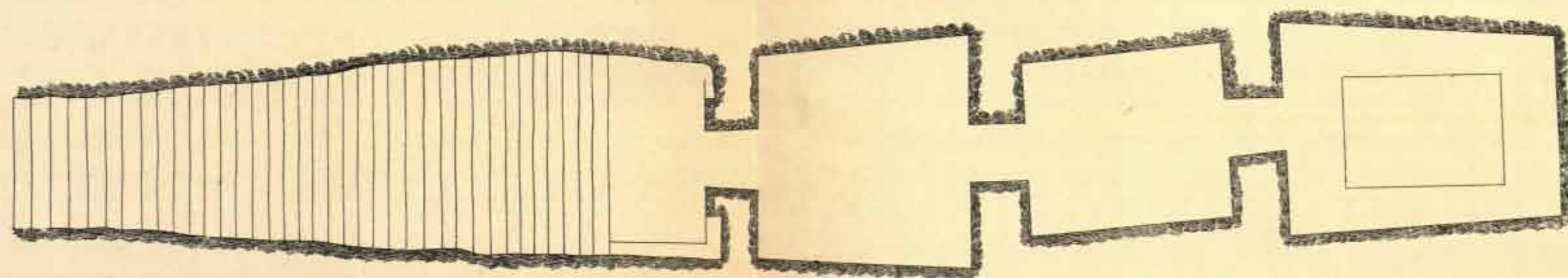
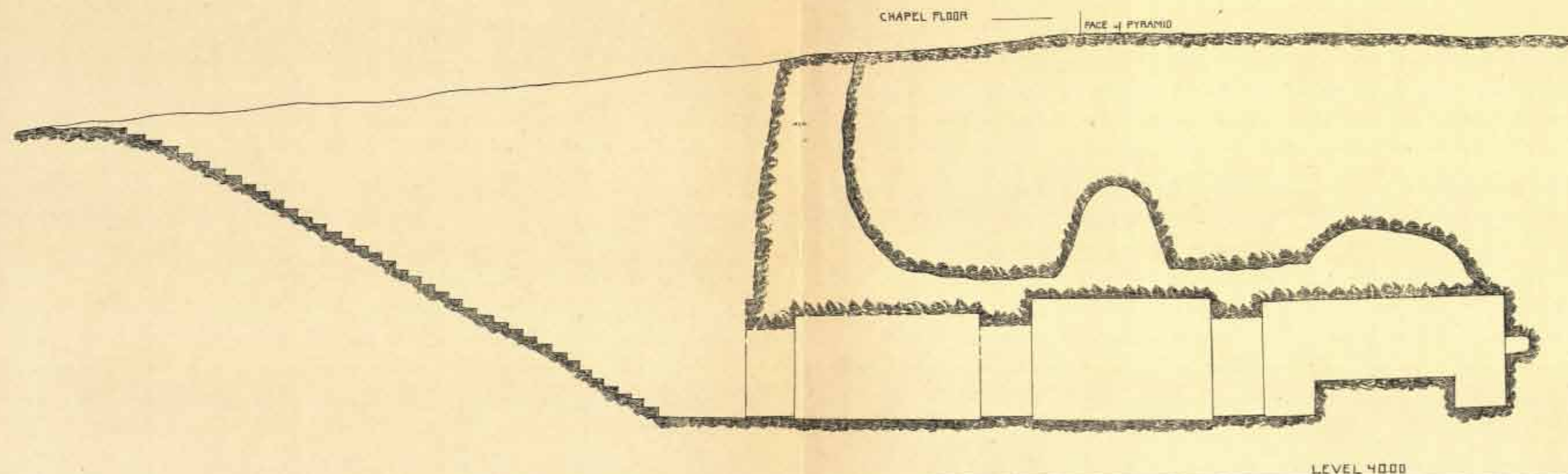
PLAN OF THE LOWER CEMETERY, GEBEL BARKAL



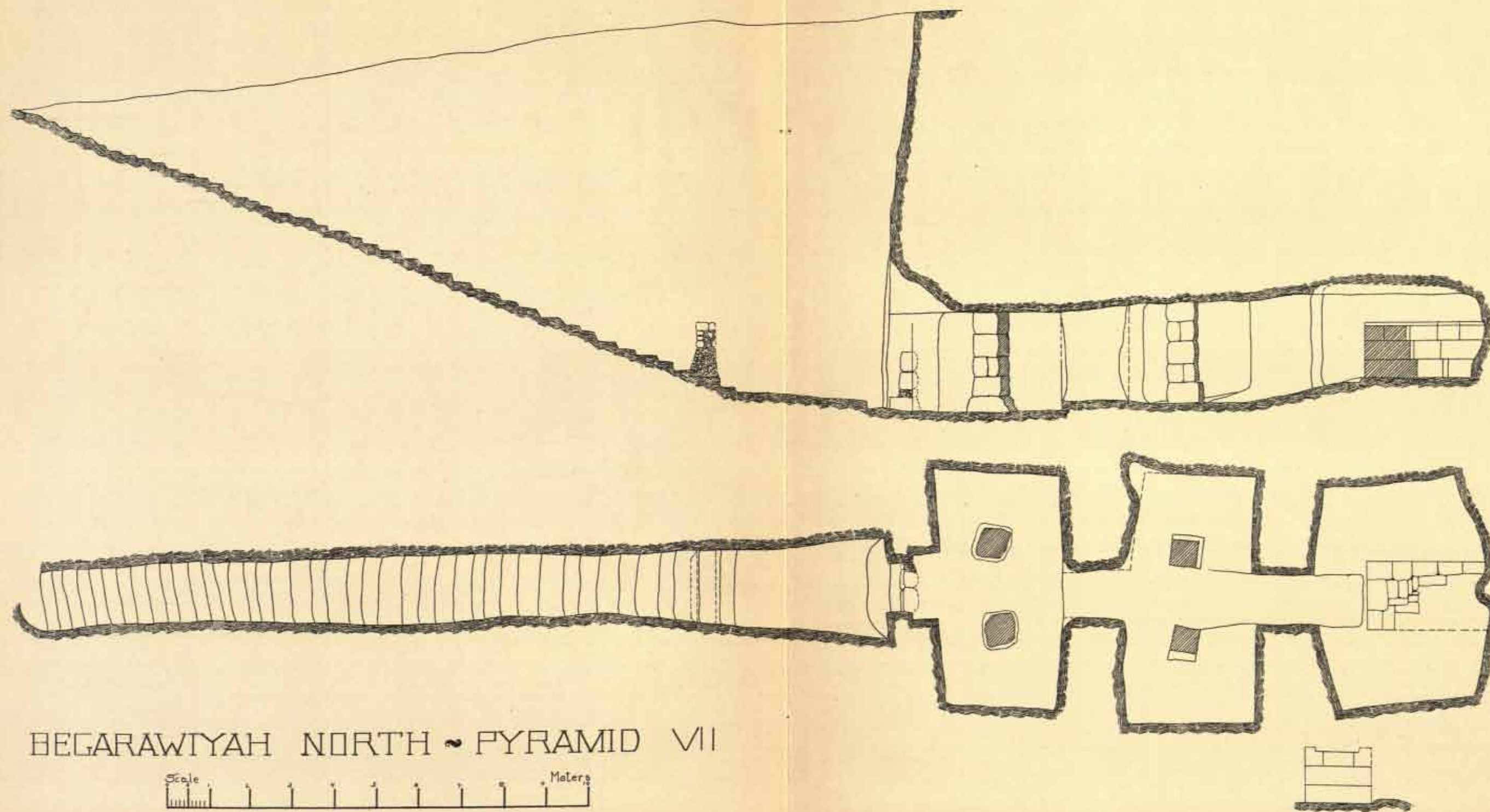


PLAN OF THE NORTH CEMETERY, BEGARAWIYAH

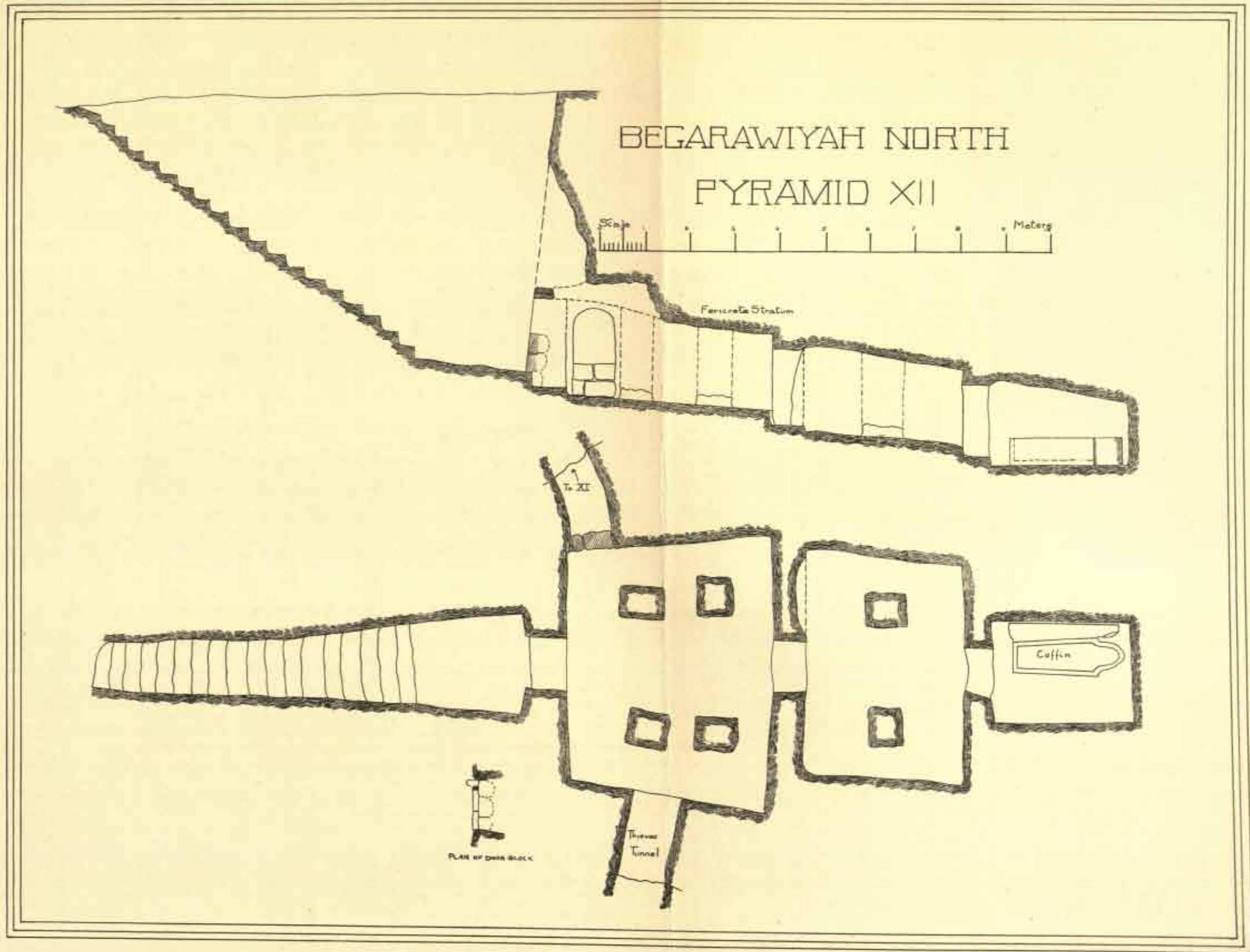
BEGARAWIYAH SOUTH PYRAMID VI



PLAN AND SECTION: TOMB-CHAMBERS OF PYRAMID S.VI, BEGARAWIYAH

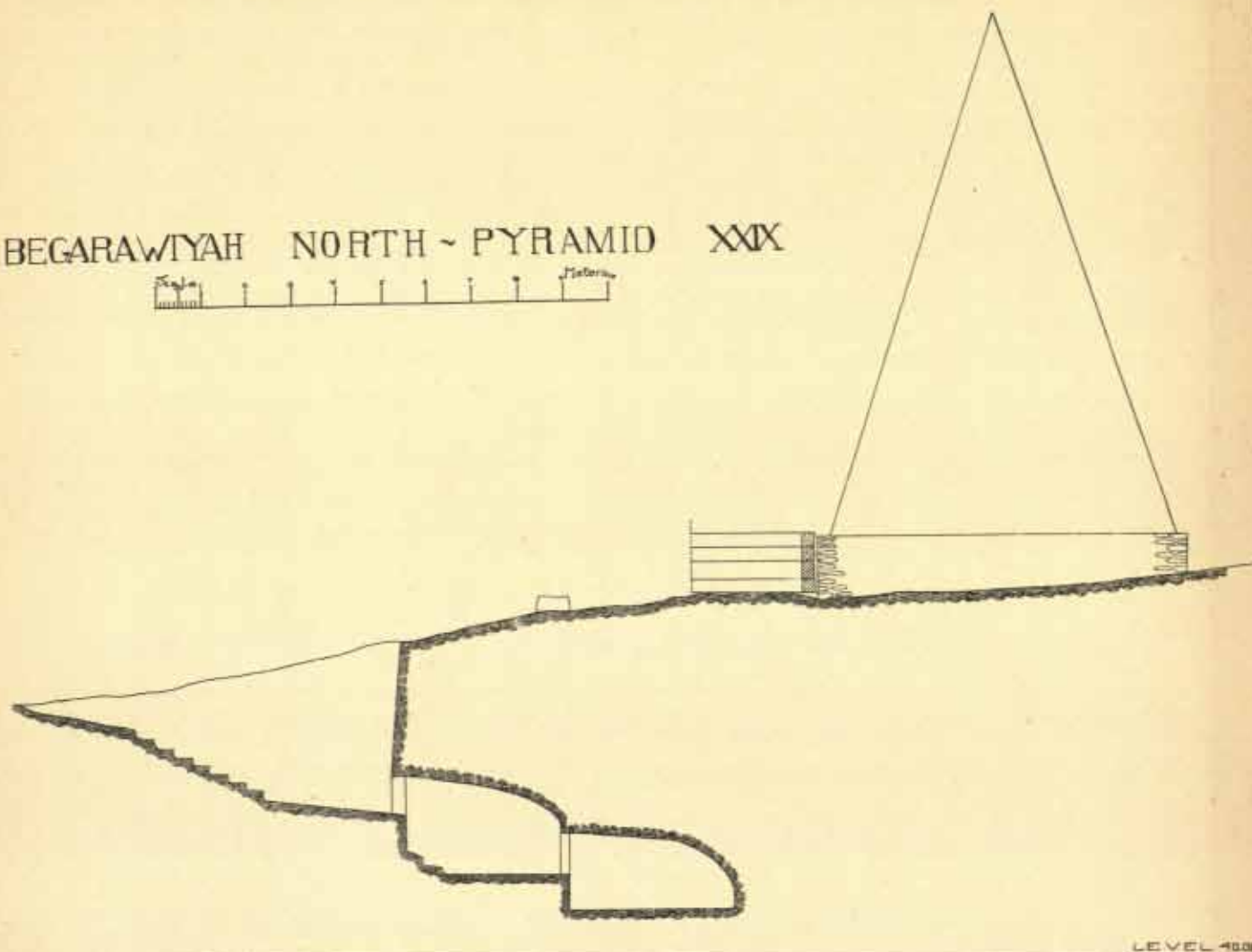
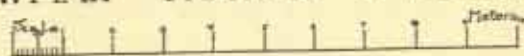


PLAN AND SECTION: TOMB-CHAMBERS OF PYRAMID N.VII, BEGARAWIYAH

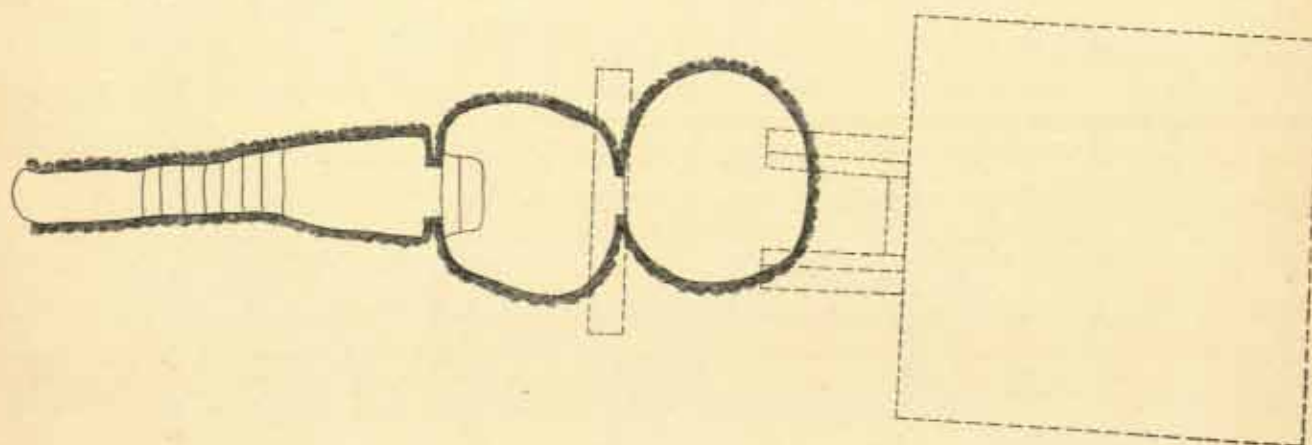


PLAN AND SECTION: TOMB-CHAMBERS OF PYRAMID N. XII, BEGARAWIYAH

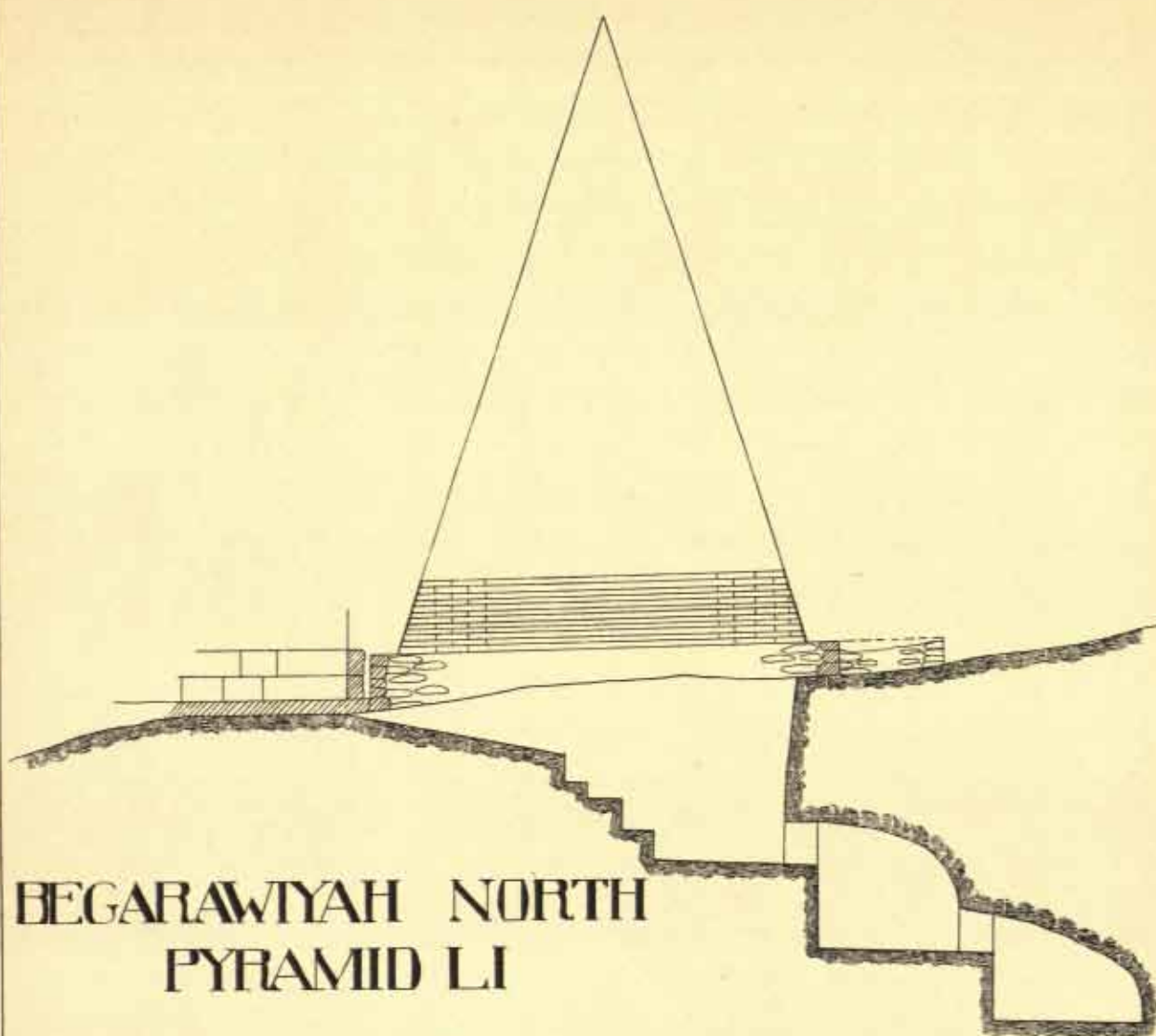
BEGARAWIYAH NORTH ~ PYRAMID XXIX



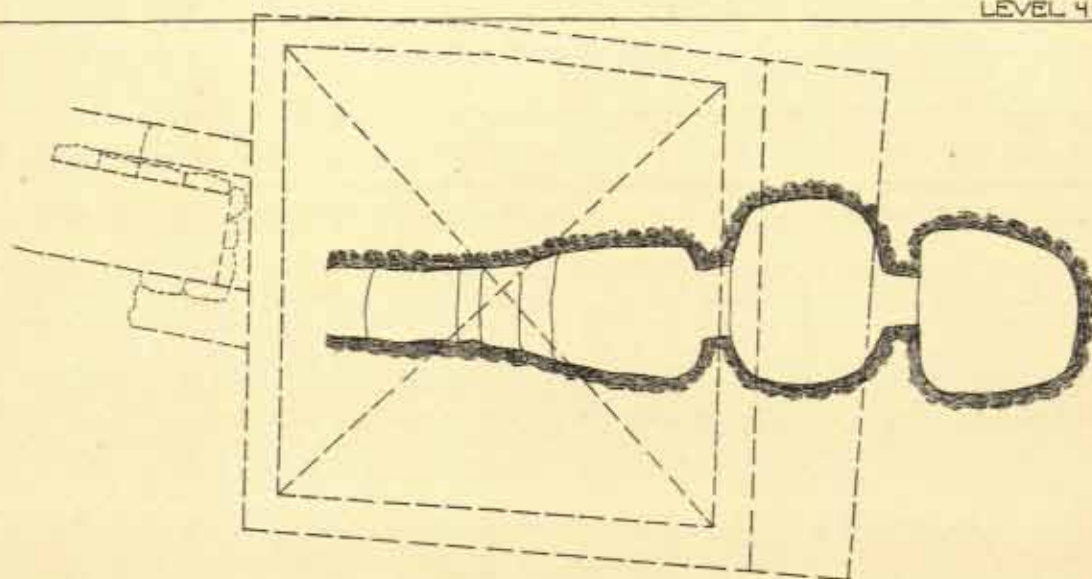
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PLAN AND SECTION OF THE PYRAMID N.XXIX, BEGARAWIYAH



LEVEL 41.00





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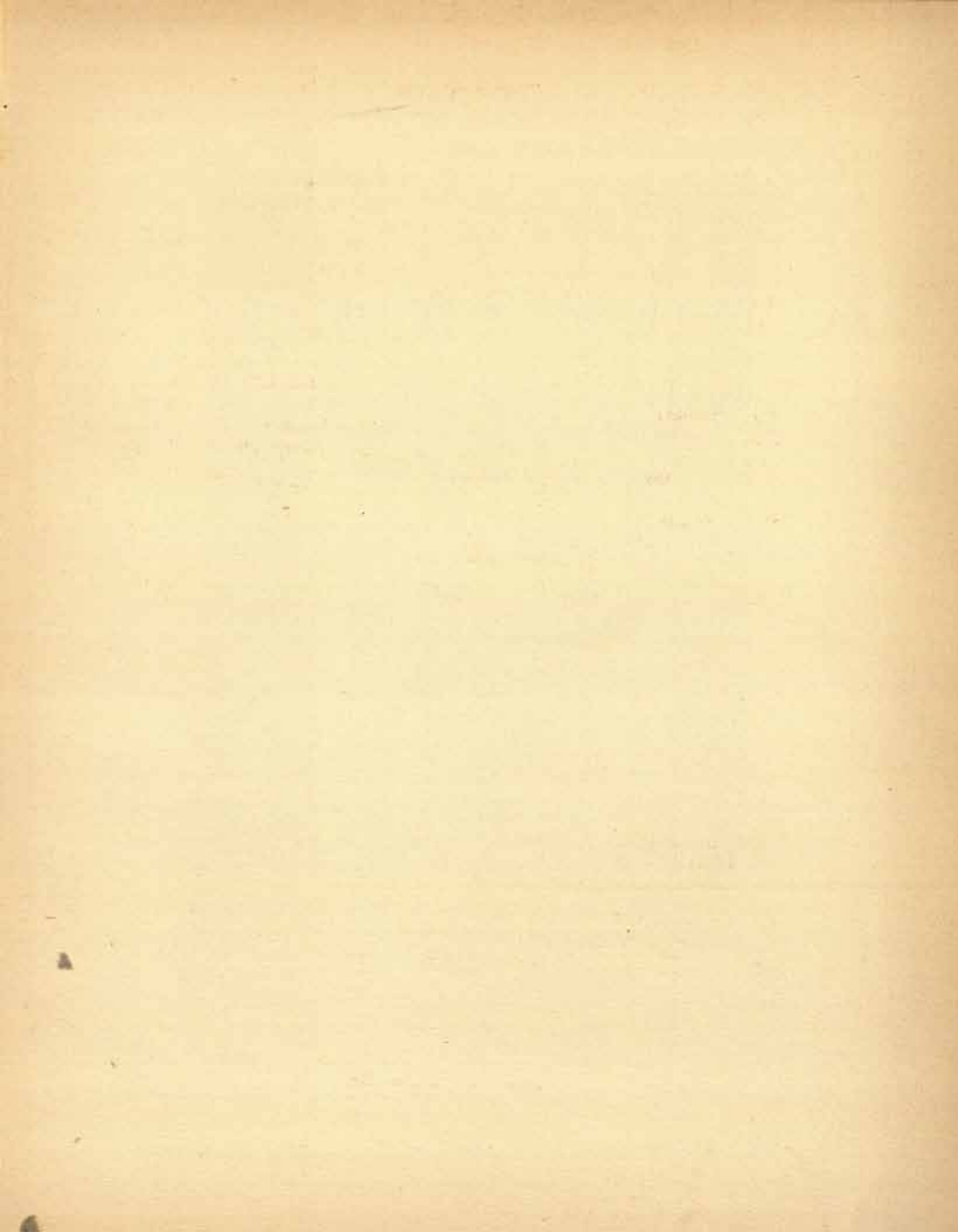


2



3

1. Limestone ostracon from Thebes. *Scale* 1
2. Wooden figure. *Scale* 1
3. Predynastic potsherd. *Scale e.* 1





Scene from Tomb 260 at Dirâ' Abu'l-Negâ.

AN UNUSUAL TOMB SCENE FROM DIRÂ' ABU'L-NEGÂ

By T. H. GREENLEES

Plate XXI

IN the village of Dirâ' Abu'l-Negâ, which occupies part of the site of the Theban necropolis, there are several tomb-chapels which for beauty and interest alike are worthy of comparison with those on the hill of Shêkh 'Abd el-Kurnah, although they are rarely visited by the tourist and are known to few outside of the circle of students.

One of these (No. 260) contains scenes which display initiative and originality on the part of the painter, of whose work much has happily survived down to the present in colours only slightly faded. This small chapel, consisting of a single room with a niche in the west wall, was built for the funerary services and offerings of Woser, Measurer and Chief of the ploughmen and farm labourers of [Amûn], whose wife's name occurs as Nubemwêset.

On the east wall, near the doorway, there is a small scene which is nearly or entirely unique, Pl. XXI. In the upper register a servant girl is shown smoothing down the white linen upon a fine bedstead. The head-rest is standing upon the bed, not yet in position; below there is a mirror, and two large pots, that on the right containing a reddish substance, stand on the floor beside it. Below this scene is another of equal interest. A large chair of black wood like the bedstead is on the right and a young girl leaning over it is engaged in smoothing out the cushion of its seat. Behind her a woman in a close fitting white skirt carries in a mirror (?) and a bowl of the same curious yellow-striped ware as other vessels in the scenes of this tomb. She is followed by a man, as may be seen from his reddish skin in contrast with the pale yellow of the woman, who carries a round-based pot of dark red ware.

The date of this tomb apparently falls in the middle of the Eighteenth Dynasty, as is indicated both by the style of its decoration and by the nearly consistent removal of the name of Amûn from its walls, which must have occurred during the religious convulsion in the reign of Akhenaten.

AKHENATEN AT THEBES

BY N. DE G. DAVIES





Plates XXII—XXVIII

SUCH studies of the revolutionary movement under Akhenaten as have been made hitherto have generally been based on the pictured story told in the tombs of El-Amarnah and the results of excavations in the city there. Starting from this considerable body of evidence, the question has been put as to the origin and course of the agitation which had so remarkable a result, the history of the four years of Akhenaten which preceded the foundation of the capital, and the probability that the royal revolt had a longer history and perhaps other and even more powerful personalities behind it. Considerable light has been thrown on theological tendencies which make the marvel credible, and some sparse facts of great interest have been disinterred from the forgotten corners where Egyptian history lies buried or unnoticed, but in the main the prologue and opening act of the drama on the Theban stage have been written on lines of surmise, sometimes guided only by intemperate fancies steeped in modern sentiment, sometimes by hypotheses more conscious of their responsibility to historic truth.

The idea that Thebes itself, though much more taciturn than Akhetaten, or, let us say, more sadly paralysed in speech by distressful accident, may yet have something direct to say on the history of those stirring years, seems to have occurred to few. The clear testimony of a wall of the tomb of Ramôse is supposed to be the one precious reminiscence that her senile memory retains. It will be news to many that, apart from what responses she might yet make to patient and persistent questioning, two tombs at least dating from these first years of Amenophis IV exist at Thebes, while others close before and after the epoch-making accession of that king may also have messages which, in the dearth of clear-voiced history, deserve all the closer study. The present article may help, not only by making some clear evidence public, but also by suggesting other places where patient ears might be sufficiently rewarded.

As a preliminary, attention may be drawn to the graffito on a jamb in Tomb 139 (which appears to be of the time of Amenophis III, though the name of Amūn is not erased) containing a hymn to Amūn, written in hieratic by one Pawah, "wēb priest and scribe of the divine offerings of Amūn in the temple of 'Akheprurē' at Thebes¹," and dated in the third year of king 'Akheprurē'-mery...., the son of Rē', Nefernefruten-mery [amūn ?]². Not for the first time one asks "Who was this king?" "Did he really reign, and when?"

¹ There is a wēb priest and steward of Amūn, Pawah, son of the owner of Tomb 247 (under Amenophis III?). One Pawah was also high-priest of Aten in Akhetaten.

² SCHEIL, *Mission Française*, v, 588; BOURIANT, *Rec. de Trav.*, xiv, 70; GAUTHIER, *Livre des Rois*, II, 344, where the addition "-meryaton" seems totally unfounded, and the grounds for the rejection of the reading  quite untenable. Scheil's reading  is out of the question, the wish having been father to the thought. Dr Gardiner supports me in reading  with BOURIANT. Perhaps  might be read if one was pushed to it, but the other is certainly the *primâ facie* reading.

The association of this personal name (which, it will be remembered, was that added to the name of Queen Nefertiti about the fourth year of the reign) with a hymn to Amūn points to a hoped-for compromise between the two parties. Was it then an attempt to prevent the schism, or one to heal it? An additional element of surprise is contributed by the resumption of a name recently borne by a king of Egypt (Amenophis II). The name, however, seems to have been taken once or twice by princes. Lepsius assigns it, on insufficient grounds possibly, to a son of Tuthmosis IV¹. In Tomb 226, in which Amenophis III sat enthroned with his mother Mutemwia, and which therefore dates probably to the first half of his reign, the owner, a royal scribe and steward, is depicted sitting with four nude children on his lap who wear the side lock². A detached fragment shows that one of these, not the youngest, was "the king's true son, beloved by him, 'Akheperrē³." The painting is a very rough and broken one, and it is impossible to say if all the children were meant to be boys. If so, they might be Thotmōsē, 'Akheperrē⁴, Akhenaten, and another.

Here then is a brother, and probably an elder brother, to Akhenaten, who might well have succeeded his father after a year of co-regnancy and have died a year or so after him, naturally or by reason of the first conflict of parties, without disturbing the chronology. A difficulty is, of course, that in Tomb 226 'Akheperrē⁵ is the nomen, in Tomb 139, the prenomen assumed on accession. The advisability of placating the rising strength of the adherents of Aten, who on this hypothesis were showing their hands before the death of Amenophis III, may have caused the adoption of the nomen as prenomen and the substitution of a personal name compounded with Aten⁶.

But, as we shall see, the victory of Aten in Thebes itself seems to have been sensationally rapid and complete, so that there seems small probability of a rival king having been set up there even at the outset. A graffito, too, is more likely to be added to a tomb a considerable time after its completion. Was then this king set up at Thebes as the death of Akhenaten approached, or as soon as it occurred, the brother of the king having been sought out and made a puppet for the purpose? One might even venture into the dangerous field of pure, or almost pure, conjecture and suppose that, when to shrewd sight the coming victory of Amūn cast its shadow before it, the faithless Nefertiti allowed herself to be proclaimed by the faction as rival monarch at Thebes under a name formed, as often, on the model of her predecessors, and also recalling the memory of a great king with whom the New Kingdom, in the strictest sense, may be said to have begun. Her reign, on this hypothesis, would have lasted but a few years till the deaths of Akhenaten and his ephemeral successor united Egypt again in the old faith⁷.

¹ *Königsbuch*, No. 370.

² DAVIES, *Bulletin of the Met. Mus., New York*, 1923, a forthcoming article in which I deal with the same subject in a more general way.



³ My notes do not show whether the form 'Akheprurē⁸ was possible or excluded. In any case, 'Akheperrē⁹ is a variant which Amenophis II also used (GAUTHIER, *op. cit.*, II, 280-285).

⁴ Arē¹⁰ name was in any case unsuitable for the personal name of a king; so that it is unlikely that this boy was the first-born son. S'akerē¹¹, however, bore such a personal name, indicating that he too had not by birth a first claim to the throne.

⁵ This defection of the queen, if such there was, has the slender support of the replacement of her name by that of her daughter Mertaten in a palace at El-'Amarnah (PRET, *The City of Akhenaten*, I, 123). Can the cause of offence have been that the king, hoping yet for male issue, married his daughter Mertaten about his thirteenth regnal year, as his father had married Sitamūn (NEWBERRY, *P.S.B.A.*, 1902, 246)? This would be a double blow to the idyll of El-'Amarnah, and we may hope that evidence for it will fail.

There is in all this an intolerable deal of conjecture to a small quantum of fact. The residual value lies in the slight additional reality I may have been able to give to this shadowy king of Tomb 139 and the encouragement to new research on the subject.

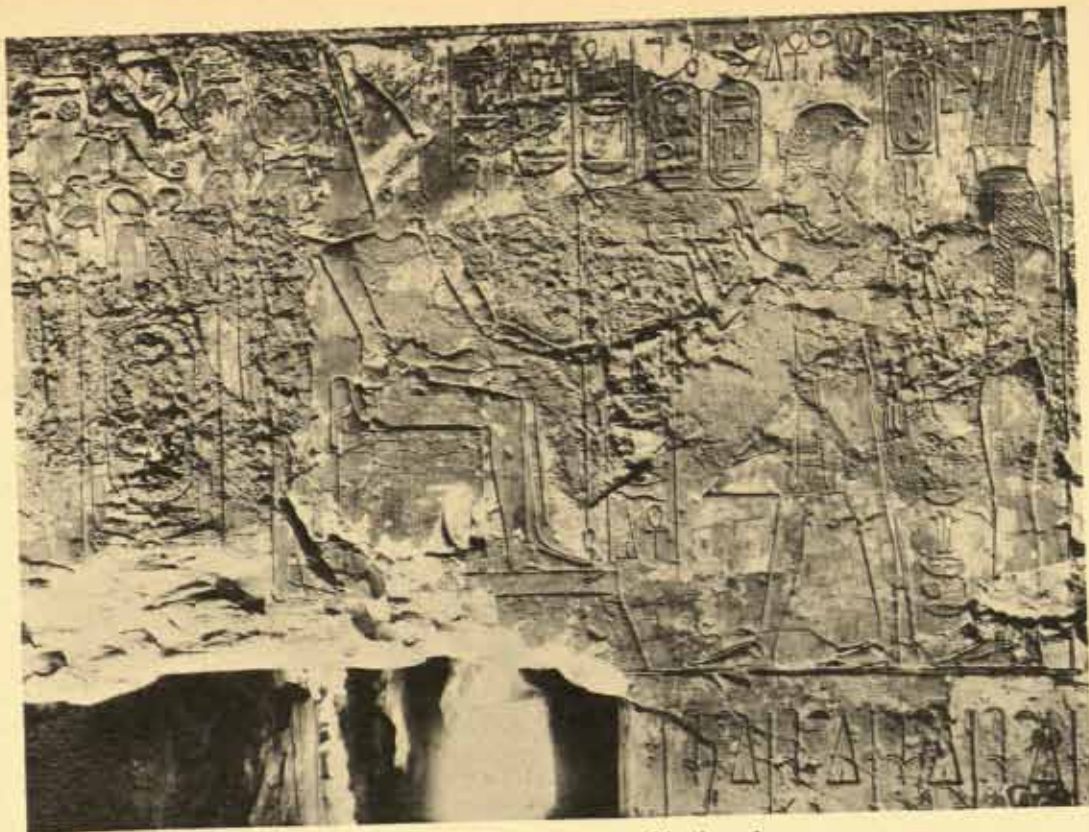
The TOMB OF KHERUEF (No. 192) is nothing but an entrance (ruined portico and wall-thicknesses) to chambers now totally destroyed¹. The tomb, though dating to the very outset of the reign of Amenophis IV, betrays the pride of revolt in its very exterior; for the doorway is set back in a deep and roofed recess in its rock façade. The back of this is occupied entirely by the door-framing, the jambs of which contain *hotepedens* prayers to Amūn (erased), Atum, Anubis, Thoth, Amūn (again), Rē-Harakhti, Osiris, and Isis in favour of Kheruef "prince, royal scribe, and steward of the great royal wife, Ty." Many proud epithets are added to these titles.

The lintel is shown on Pl. XXII. Its centre is occupied by the prenomen of the king, set within the *ka* arms. Over it is the solar orb of Edfu and between them, the sign . Thus the whole reads "Neferkheprurē-Wa^cnrē, image of the sun-god of Edfu." On each side of this is the king's bust on a staff, held up by a lost symbol (perhaps the  perch of the *ka*). On the right Amenophis IV (the first of his cartouches lightly erased, but the nomen intact and having the addition "great in his duration" within the cartouche) extends a censer, "making incense that he may make a life-giving," to Atum of Heliopolis and Hathor "regent of Thebes." Behind the king is "the mother of the god, Ty," holding a whisk and a naos-headed sistrum. The king has the face of his father; Ty seems to have a touch of portraiture, such as we know from the Berlin and Sinai heads; for the rest, all is in the old style. On the left hand the same pair worship Rē-Harakhti, "great god, lord of heaven" and Maet, "daughter of Rē." The king is "giving wine that he may make a life-giving." His mother, who holds a sistrum and papyrus, is styled "mother of the god (?) and great royal wife."

On the right (north) wall of the recess is a figure of Kheruef and his hymn to the sun in his daily and nightly courses. The passage of the sun through the underworld is couched in mythological language, but stress is laid on the blessings which he brings to the dead there, the gospel of solar cults to those facing death. This substitute for the popular eschatology, which, if developed and supported by picture, as might well have been done, would have given to the new faith that appeal which it conspicuously lacks, was never so enhanced. The revolution to the end was strangely infertile in sepulchral designs, as if disdainfully superior to popular fears and hopes for the future life. Some passages from this hymn may be quoted. "Thou hearest the cry of those who are in cerements and raisest those who lie upon their sides (in the coffin). Thou distributest truth as food to him who possesses it, thou rejuvenatest (men's) nostrils by its indwelling (power)...their heat penetrates (them), becoming renewed at thy direction. Thou comest as Aten...thou shinest for those who are in darkness; those who are in the pit rejoice²." (Pl. XXVII, n.)

¹ The façade, which may be decorated, is still buried. Erman (in BRUGSCH, *Thesaurus*, 1120, 1190) describes a scene in which Amenophis III and Ty are shown with sixteen royal children, ostensibly in a tomb of our Kheruef dated to the thirty-sixth (last?) year of that king. Dr Gardiner and I once entered it and found it in sad ruin, but, as we reached it by mole-like burrowings, we are not sure of its exact location, though it is in the vicinity of Tomb 192. I find no notes of the contents or shape, but see no possibility of its being part of the present tomb; so I imagine that Kheruef immediately on the accession of Amenophis IV abandoned it and commenced this other tomb in which the new fashions and faith should have expression.

² I fear these texts may not be correct in every case. I give them as I have found them in my rough notes.




1. Akhenaten and his mother worship the gods.
Lintel, Tomb 192.



2. Parennefer instructed to collect corn-dues.
North Wall, East Side: Tomb 189.

Passing into the tomb, we find that the side walls of the entrance are adorned in a way that is totally novel, and this, more than anything, reveals how widely and with what celerity the old traditions were being overturned. As is well known, the wall thicknesses of the entrance of a tomb at Thebes are always occupied by figures of the deceased adoring the sun or passing in and out, but at El-'Amarnah generally by a figure of the king adoring the Aten, while the deceased follows his example in a sub-scene. This is not mere variation; it points to the greatly increased pretensions of the king, one of the less attractive features of the revolution. This substitution has already been made in Tomb 192, before the king had changed his name, his essential faith, or his capital.

On the south side (the tomb faces east) there is a main- and a sub-scene. The upper picture falls into two episodes. On the left, Amenophis IV faces outwards, staff in hand, "offering a great oblation to Rē-Harakhti, that he may make him a gift of life like Rē for ever," and "adoring Rē at dawn" (note the parallelism). Before him is a block of text, so carefully mutilated that scarcely a sign can be read, and apparently divided into nearly two hundred compartments, each having a number below it. It seems to have been a list of offerings; but I have not been able to identify a single one of the familiar items. To the right, facing inwards, a king, over whom the vulture Wazyt hovers and behind whom the usual assurance of the blessings of Rē is written (no names or heads are preserved), pours a libation on offerings before another king facing him. This figure wears a long skirt, sandals, the bull's tail, an apron with a leopard's skin hung over it, and perhaps the feathers  on his head¹. A queen (?) is behind him, clasping his wrist with her right hand. She wears a clinging gown, a sash tied round her waist, and sandals on her feet. The relief is cut in good stone with surpassing fineness, as in Tomb 57. Who can these be, if not the recently deceased king and his surviving queen, Ty? If so, the picture seems to claim that the father was not hostile to the revolutionary tendencies of his son. The sub-scene contains three columns of text in the centre which are but partially legible. To left and right of this are kneeling figures of Kheruef facing outwards and inwards respectively. The texts allotted to the figures are still more completely erased: one of them will no doubt be addressing the sun, like his monarch above, and the other revering the dead king.

The left (inner) part of the opposite wall was probably occupied by a figure of the king facing inwards, as the raying (?) sun can be seen above a gap and behind it a cartouche which seems to contain the prenomen of the king. He will be adoring the setting sun; for the figure of Kheruef (erased, as always) in the sub-scene opens his prayer with "Hail to thee, O Rē, when thou settest in life..."

The rest of the wall is filled from top to bottom (save where the door opened against it) with an address by K. to the infernal gods in twelve columns, of which the last ten begin with the same phrase "I have come with acclamation," the last eight adding "of such and such a god." This list of divinities comprises Osiris, Onnufer, "the lord of the west," "the ruler of Dat," "the king of the gods (erased)," "those rich in names," "[the eldest] of the five gods," and "the god of the city, Osiris, ruler of eternity." In the ceiling texts K. addresses Geb, Rē, the gods of destiny (*ntr.w hsb.w*), the first gate of Amhet, and "the gods, lords of Dat." Evidently any alteration in the relative status of the supernal gods

¹ I do not know of any parallel to this diminutive skin worn by a king. Was Amenophis III a priest of Rē-Harakhti like his son? The homage paid, first to the god and next to the king as his son, depicted in Tomb 188 is thus performed by the king himself in this tomb.

had not yet affected the validity of those of the underworld, nor any tendency to henotheism checked their kaleidoscopic changes.

A great pillared hall seems to have been planned beyond this passage way, but was at least never decorated, and later was incorporated in a great catacomb.

TOMB 188 lies just to the west of the tomb of Puyemré¹ and in the same cliff. It was inhabited a few years back, but Dr Gardiner bought the owner out of the main chamber in 1913, leaving him in possession of the uninscribed back room. Mr Winlock had the rubbish removed from the hall last year, and this year I cleared the courtyard sufficiently to lay bare the true entrance and most of the rough façade². Though the name of the owner of the tomb has been carefully erased, I managed to decipher it from the remains, and this reading has since been confirmed by traces on the exterior. He turns out to be the royal cup-bearer and chamberlain, Parennefer, whose tomb at El-'Amarnah I had already published³. As no shafts were found in that unfinished grave and there are four or five in the Theban sepulchre, he may have returned to Thebes to be buried. In the northern tomb he is known simply as the cup-bearer and chamberlain (valet) of the king, but at Thebes, while that is also his regular designation, he adds on occasion a long list of titles, showing that he was a man of versatility and influence⁴. Had the jambs of his tomb at El-'Amarnah also been inscribed, he would probably have appeared in the same light, and we must not conclude that his fortunes had suffered by following the king to his new capital. It is plain that his contemporaries knew better than we what was due to a royal butler, and were not affronted at the scenes in both tombs which exhibit him as the recipient of praise and rich rewards from his master.

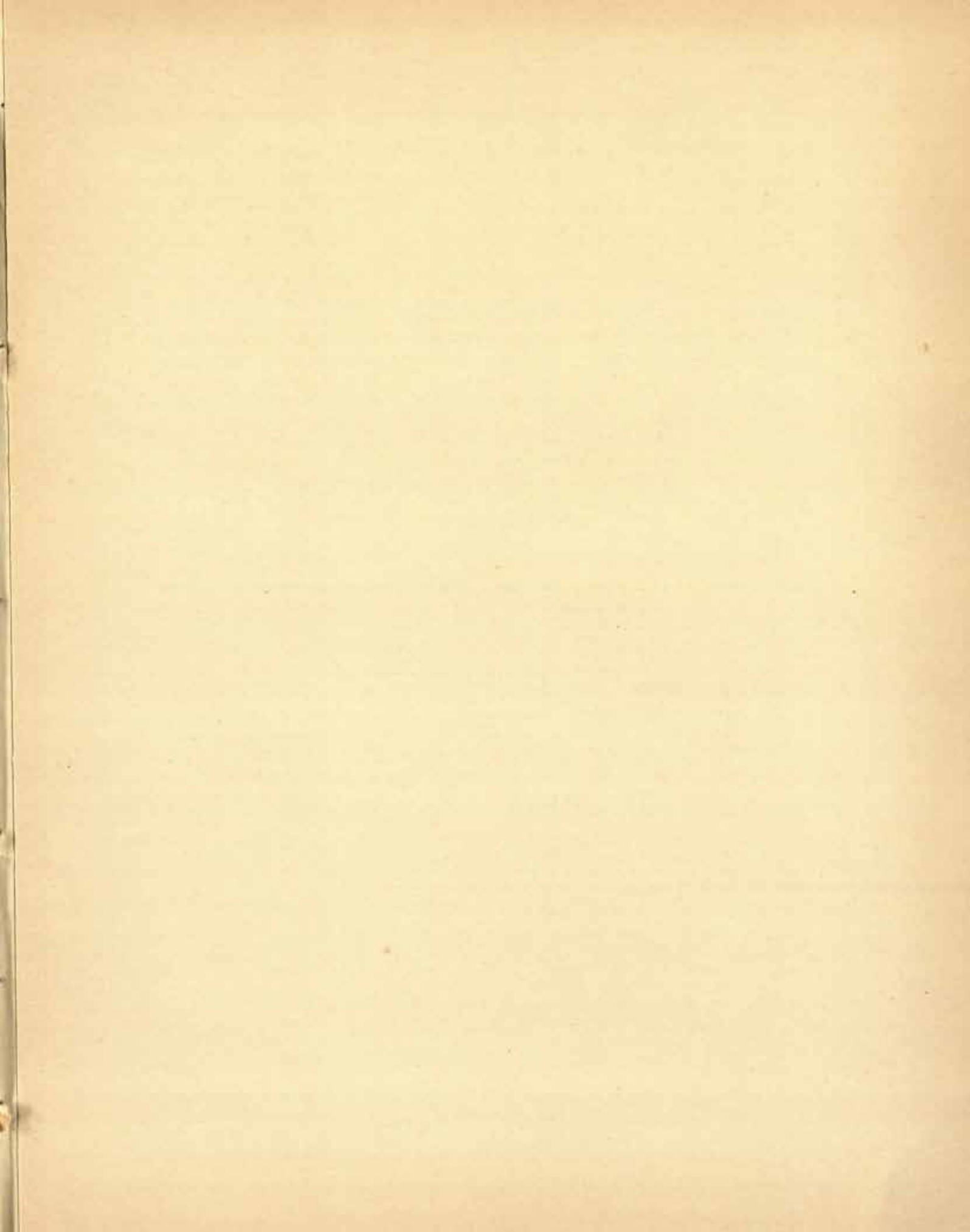
The tomb at El-'Amarnah is rendered unique there by the adornment of the façade with scenes from the life of the royal family. When the front of the Theban tomb was cleared, the minutely chipped surface betrayed that it too had been sculptured, though such a treatment of the façade is as rare in the old capital as in the new. Perhaps Parennefer was something of an upstart who dared not make great pretensions in the size of his tomb, yet had ambitions and ideas which it outran his means to satisfy. In both tombs he began with a finely executed scene or two, and ended with rough walls blank of pictures, or only the hastiest of presentations.

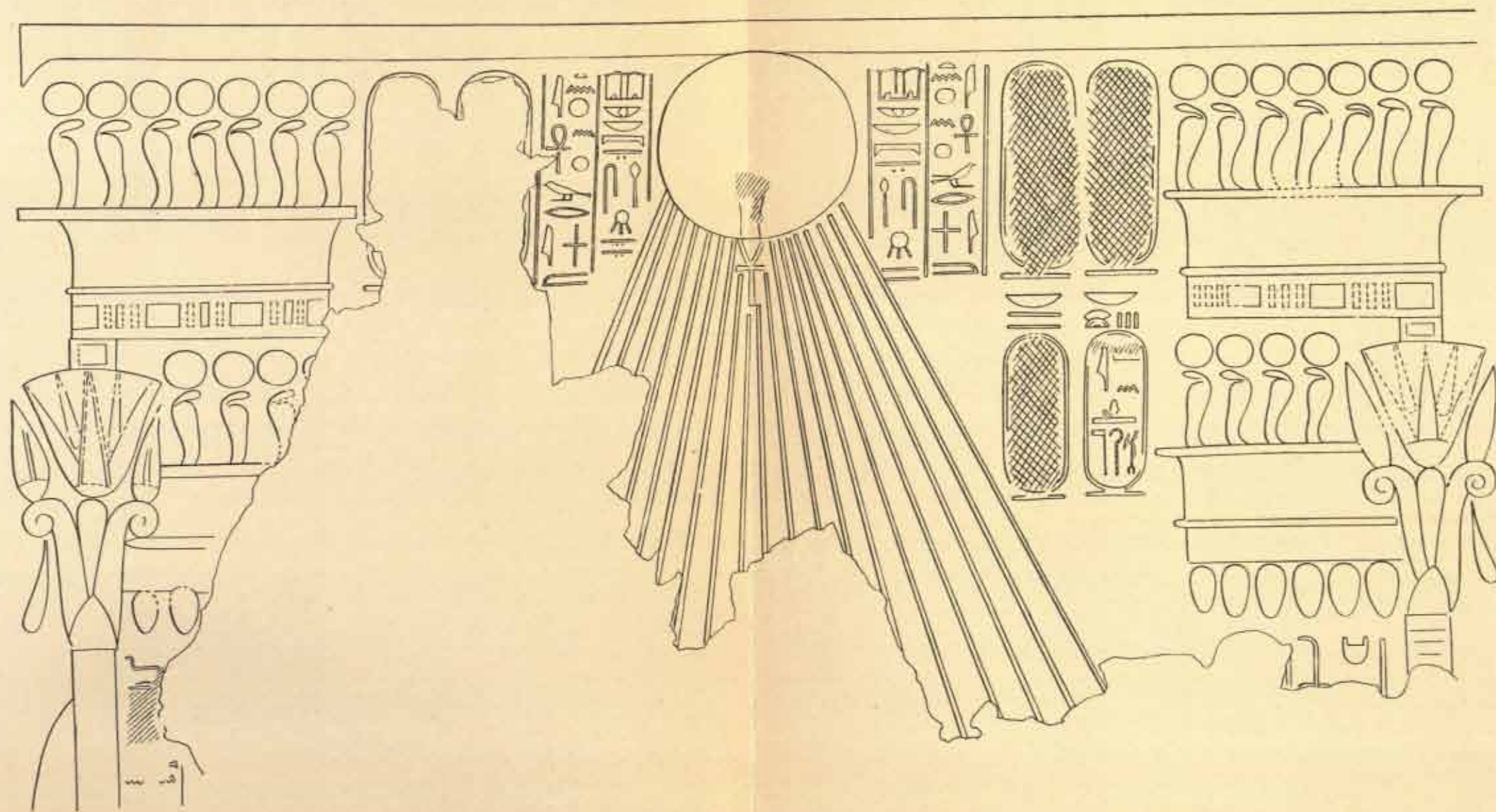
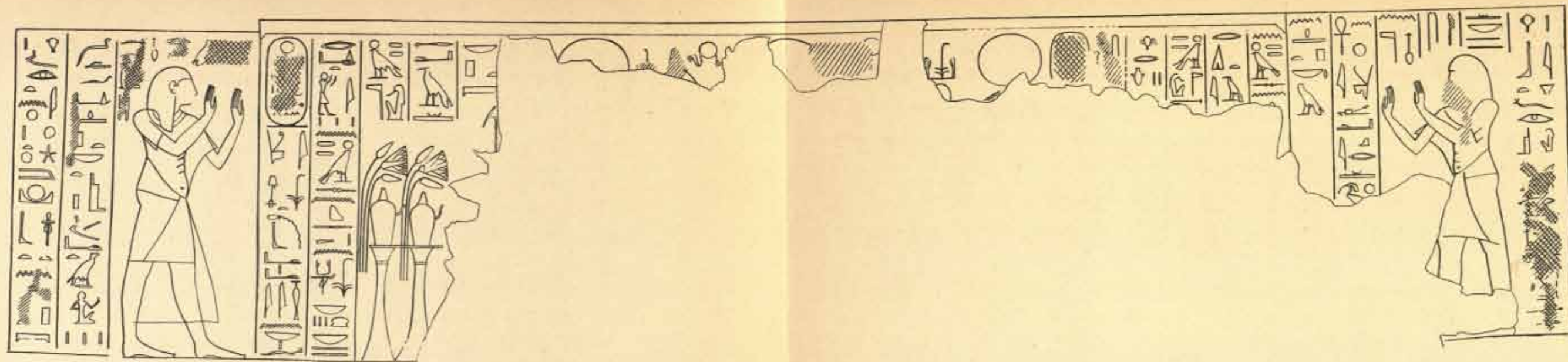
The east half of the façade is left rough rock (the tomb faces north-east, *i.e.*, river-north) and the other has had two late doorways cut in it. What remains on the west reveals to painful peering the following designs. Near the entrance (B on the plan, Plate XXVIII) is an altar, with offerings and a triple papyrus on it. The sun above it (with *ankh* and uraeus *en face*) extends hands to the gifts and to the king — facing them. The cartouches and titles of the Aten can be traced to the left of the orb. The king wears the *nems* head-dress and extends a censer to the god. The queen is perhaps behind him, holding a *kherp* wand. A parallel scene (C) back to back with this one extends to the western limits of the court. There may have been another altar there to the setting sun. At any rate the disc is seen under

¹ There is said to be another doorway in the same court, the chambers of which have been destroyed, and, as several cones of one Mahu, "warden of the palace," were found in Tomb 188, that neighbouring tomb may be his, and of the same date. Strangely enough, one or two of his cones were also found in Tomb 192, two hundred yards away.

² DAVIES, *El Amarna*, vi.

³ The accounts of the spoliation of the king's tombs reveal the importance and wide activities of royal butlers.

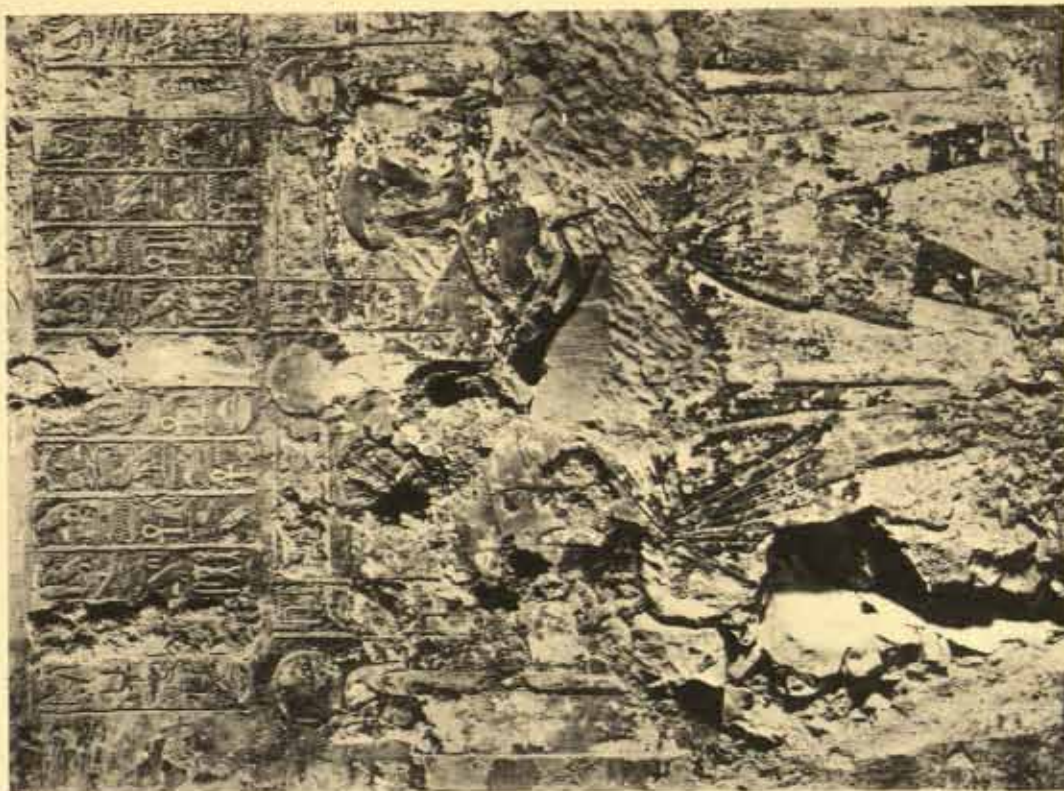




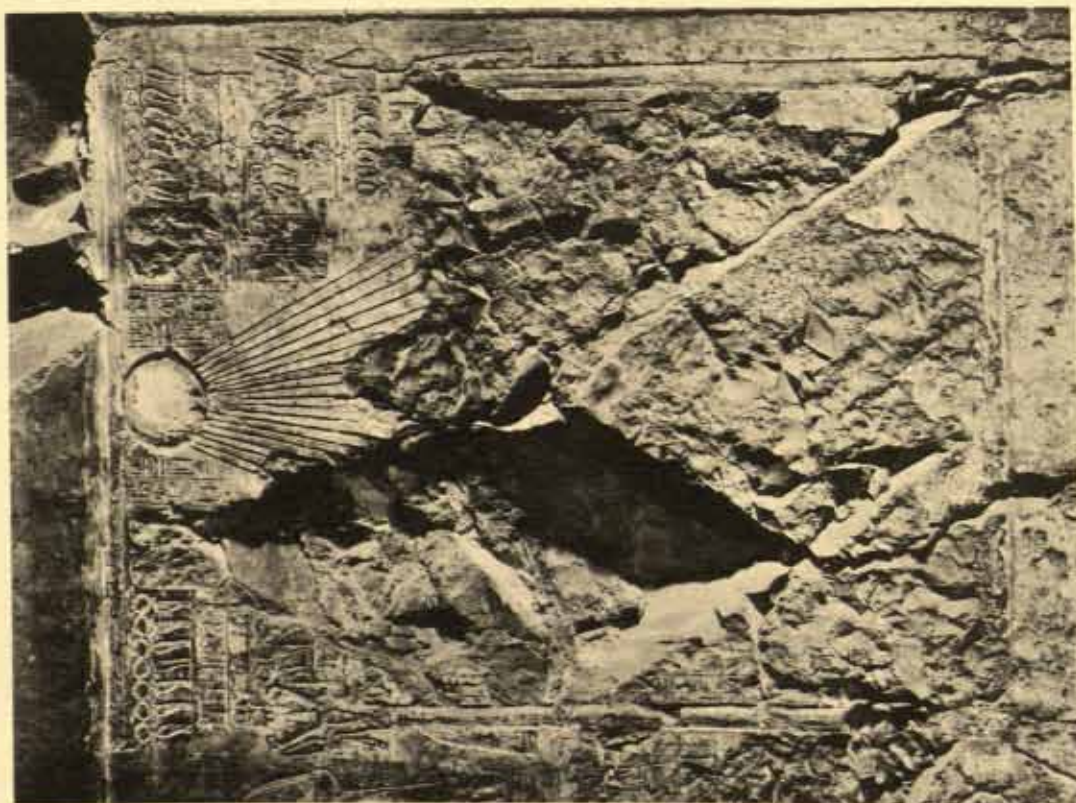
always erased)." These are (1) "The prince (*ꜥꜣꜥꜣ ꜥꜣꜥꜣ*), father and favourite of the god, royal chancellor of the north, one who has approach to the person of the god, favourite from his birth, superintendent of all the craftsmen of the king" (Pl. XXVII, *a*); (2) "the prince, confidant of the king in the confidential chamber, one who [entered] and left the palace in favour, superintendent of all the works of the king in the temple of Aten" (Pl. XXVII, *b*); (3) "the prince, great in his rank, large in his dignity, [a gentleman] at the head of the people, satisfying the heart of the king and carrying out his monuments in the temple of Aten with proficiency" (Pl. XXVII, *c*); (4) "... from moment to moment in settling disputes of north and south Egypt, superintendent of priests...." (Pl. XXVII, *d*); (5) "the prince.... [attendant on the king wherever] he trod, giving satisfaction in all the land, the steward...." (Pl. XXVII, *e*).

The broad wall-thicknesses of the entrance are in a deplorable state, the western side being almost completely destroyed and only the left half of the other preserved. In the latter case (Pl. XXVIII, D) the figures of Parennefer and his wife which faced outwards are lost (a stray fragment shows the carefully sculptured wig of the lady), but a large part of their prayer to the sun remains: "Adoration of the living *Reꜥ-Harakhti*, who rejoices on the horizon in his name of the sun (*šw*) which is Aten, (and of the) [high priest] of the living *Reꜥ-Harakhti* who rejoices on the horizon in his name of the sun which is Aten, the King of upper and lower Egypt, Lord of the two lands, [*Neferkhepru*]*reꜥ*-[*Waꜥnrꜥ*], to whom life is given, on the part of...[Parennefer]. He says 'Hail to thee. [When] thou dawnest on the horizon thou illuminest the circuit of the sun's globe (Aten); thy beauty is on all lands and all men perceive by means of thee. They awake when thou gleamest and their arms wave welcome to thy *ka*; (for) thou art the god who createst their bodies (so that) they live. When thy rays (fall) on the earth, they sing chants; even as I give praise to thy fair face, O child (?) of *Him who rejoices on the horizon*.... [I bring] offerings of the divine offerings which have been made on [the altar]....the prince....[P.]'." On the west side (E) P. and his wife were shown entering the tomb and perhaps hymning the setting sun; but only a few signs survive. The ceiling was divided by three texts into two panels filled with a common pattern. One can still make out "Ho, Osiris, the royal cup-bearer,P....all his limbs thriving....!" The disposition of the scenes in the interior here foreshadows that of the tomb at El-'Amarnah by the assignment of all four positions near the doorways to imposing figures of the king in state, and by this subordination of the owner to the monarch from the outset the tomb displays both the autocracy of the headstrong king which it was a political necessity to stress continually and incisively, and the even increased dependence of the subject on the king for life, death, and the hereafter.

We will commence our survey with the east side of the back wall (G). The subject is the regular one of the reception of the official who had done his duty by his king and was duly rewarded for it. This scene at Thebes always takes place before the raised throne in the reception hall; but at El-'Amarnah before the palace window. In this tomb we see the transformation actually taking place. As of old, the king is on the royal dais, which here is provided with a double canopy, as is shown by the two cornices and perhaps also by the doubly capitalised columns (Pl. XX and XXIV, 1). But how changed is its aspect, and merely, as it seems, by the introduction of the raying sun! At El-'Amarnah this is sometimes done by breaking the line of the rays; elsewhere, as here, by breaking the line of the cornice, treating the unsupported ends as if they were capstones with finished ends, and making the uraei face one another instead of a possible enemy. The effect here is ludicrous;



2. Parennefer presents the sacred staff.
South Wall, West Side: Tomb 188.



1. The Royal Kiosk.
South Wall, East Side: Tomb 188.

for these capstones float in the air, like streamers tied to the column. Yet it looks at first sight as if it is to this muddled drawing that we owe the even more muddled and pretentious pictures of the "palace window" at El-Amarnah. But more of this anon.

The radiant sun is already in the form which it kept to the end. It is seen full face, and the uraeus which hangs over it with the sign of life round its neck (for the side view see the lintel, Pl. XX) is also shown full face in the centre. The Aten is thought of then as an orb, not as a disc. His cartouches would have exhibited his formal name, defining his relation to Rē-Harakhti, in the words quoted on p. 138, just as the king's name is in the first style. His simpler definition as "great living orb (Aten) keeping the *sed* festival, lord of heaven and earth, illumining the two Egypts" is also quite regular, except for the last addition¹.

The erasure of the cartouches of the Aten and of the first cartouche of the king, leaving the other intact, is also the usual practice².

The royal figures are seated under the canopy, the king apparently on a solid throne, and the queen on a chair. It is well nigh certain that his companion is Nefertiti; for Ty could scarcely be styled "royal wife" without this being preceded by "royal mother." In front of the king is written "Said [by the king] to the royal cup-bearer [and chamberlain, P.] 'My divine father [Hor-Aten] has set (?) [South, North] West (?) and East and [all] foreign lands under my feet'" (Pl. XXVII, t).

The scene before the throne is divided into an upper and a lower picture. In the lower, P. kneels → at the top of the stairs of the dais. Over him is written "The royal cup-bearer, P., says '(As) thou growest old, O fair child of the Aten, may he give [thee] millions of *sed* festivals eternally in [happiness and joy]'" (Pl. XXVI). Behind P. two figures sprawl →, smelling the ground in approved fashion. The upper wears a festal cone, and both seem to be repetitions of the figure of P. in the act of expressing separate eulogies. Over the upper we read "Laudation to the king and payment of homage to Waṇrē by....P. He says 'Hail to thee, ruler of the nine bows. Thy father, (the Aten), has [set] thee eternally on the seat (?) [of the living] like Rē....'" Over the lower is "Laudation to the good god, homage to the ruler of Thebes by the.... [P. He says] 'Hail to thee, [child of] the living Aten, Waṇrē, one without his peer, who formed me and fostered me. Grant that the people of my city (?) may say 'How happy (?)....'"

In the upper division we are shown the reward of Parennefer. He stands on the left → and is being loaded with the collars of honour by an attendant ←, who exclaims "O good god, beloved by those whom the ruler has appointed!" (Pl. XXVII, u). Over him is "The royal cup-bearer and chamberlain, the favourite of Waṇrē, the steward and superintendent of the granary (?), stands before Waṇrē (?) and is rewarded...." A second attendant ← makes ready to apply unguent to the head of P. from one of three bowls of it ready to hand, while a third brings ← a collar, bracelets, and armlets on a tray. Six similar sets are on a stand behind him.

The rest of the scenes on the wall point the other way. They too fall into an upper

¹ Cf. *El Amarna*, II, Pl. V and VI, Pl. XXXII. This claim of Egypt on the god's benevolence is replaced elsewhere by the wider phrase "Lord of all the circuit of Aten." "Keeping the *sed* festival" (later "master of *sed* festivals"), following up the fancy of the kingship of the sun, refers to his control of the means of rejuvenation.

² The king retained the name of Amenophis till the middle of his fifth year, and it is entertaining to see that the "Amen" of the name remains uninjured in this and all other tombs of the Atenists, though they expunged it from the name of the king's father.

and a lower picture and are divided so that we have a middle and a left hand subject. Of the former nothing is left but a figure of P. on the right ←, wearing the festal cone and four collars of gold beads. No doubt P. is being conducted home with jubilation and music¹. A broken text makes mention of the gold. A similar figure stood in the lower division.

Of the lower part of the left-hand scene nothing remains but sixteen tables of cloth, ranged in four rows of four, no doubt set before a seated figure → of P. The porter of a jar is faced by a number of excited women ←. The corresponding figure of P. → in the upper picture is preserved, with his titles. Servants ←, arranged in two rows, bring him gifts, and similar presents are laid before him on tables in four rows. They consist of jewellery, vases with rim decoration, and eleven tables of cloth. Ten men ← are bringing such gifts on trays in the topmost register, led by a spokesman. Those in the register below are headed by a leader and by a troupe of women ← with cones on their heads, shouting and dancing. The foremost plays the double pipes; two behind her, tambourines (?). A young dancing-girl → is in a doubled-up posture. All this wall is incised work, with painted *khekers* at the top.

The adjacent half of the east wall (Pl. XXVIII, H) has been pierced by a door. The top scene is partly preserved, but is of the roughest description. On the left, P. is seated → in a chair; his wife is behind him on a straight-legged stool.

On the right (west) of the door to the back room (J) the royal baldachin is again shown, but is almost completely destroyed. It is in paint merely, but beyond the right-hand column the ground is sunk, and the rest of the scene is in very high relief in moulded plaster, with two intervening columns of incised text (Pl. XXIV, 2). A double canopy is shown; but this time the inner one is supported on a second column with closed papyrus capital. The roofs were probably crossed by the painted rays of the Aten, as there is an erasure in the middle. The king (and queen?) were seated on the decorated daïs; before them is a bouquet.

There faced them ← eight or more figures of P. (after the fourth they are in paint only), each standing with a ceremonial staff, as in the tomb of Ramōsē (Pl. XXIV, 2). The first three staffs end in the head of Rē-Harakhti. The fourth seems different and the head perhaps wears an *atef* crown; the rest are injured. The first of the accompanying texts says: "For thy *ka*; a bouquet of thy father" May he favour thee; may he love thee; may he prolong thy life; may he give thee life, stability, happiness; may thy enemies be overthrown in life and death. Said by the cup-bearer and chamberlain, the favourite of the good god, [the steward, Parennefer]². The other texts were in just the same strain, save for the name of the god, a variation in the blessings asked ("courage and victory," "health," etc.), and in the epithets of P. The name of the god is again erased in the second and third cases. The fourth was "[The king of south and north Egypt, lord of] the two lands, Akheperkerē, deceased." Of the rest one can only say that the sixth seems to mention Tuthmosis I again.

The right half of the door-framing in the back wall is destroyed; the rest is in incised

¹ Cf. *El Amarna*, vi, Pl. V.

² The name of the god is erased: in the first and third cases it may have been that of the Aten in cartouches. Papyrus and a sprig of foliage may be detected in the hand of P. (in paint).

³ Part of the titles are incised, too much of the field having been carelessly cut away. In consequence of these changes and the strange relief, the scene has all the appearance of a late usurpation, but is undoubtedly original.




Scale 1/4

PARENNEFER BEFORE THE KING: TOMB 188.

work, coloured blue (Pl. XXVIII, F). Osiris must have been seated on this side of the lintel; for the prayer of the adoring P. → runs "Laudation of [Osiris, obeisance] to Onnufer by the cupbearer and chamberlain, the steward (?) [P.]. He says 'Hail to thee, king of the living! I have come to thee and laud thy beauty and revere thy majesty [for ever and] ever.'" The left jamb contained four *hotpedens* prayers for the *ka* of "the royal cup-bearer and chamberlain, steward and superintendent of priests, P." The only intact one is to Anubis, dweller in Ut (?), "that he may cause my corpse to thrive in the necropolis and my soul to rest in its mansion daily" (Pl. XXVII, f). Epithets of P. are: "attendant of the steps of the lord of the two lands in all the places which he trod," "satisfying the heart of the king in all the land," "one excellent and punctilious, with the utterances of whose mouth men are content" (Pl. XXVII, g), ".... mouth (?) of Horus in his palace" (Pl. XXVII, i).

On the east side of the north (front) wall the king is once more on his canopied dais (K). Its roof is still supported on the twin-capitalled column, but the lower part shows the form of the "palace window," that is to say, the king leans out over a cushioned screen adorned with captive foreigners¹. In reality we have not left the canopied throne. The so-called "balcony" (apparently the prototype of the form shown in Tomb 55 and at El-'Amarnah) is really no more than a dwarf wall running round the dais to protect the occupants where there are no stairs. I am told that in the palace at Malkatah the platform of the throne shows traces of such a screen-wall in front, the sides being approached by stairways. Contemporary pictures in Tombs 48 and 226², where a row of uraei are seen below the feet of the king, betray the existence of a screening parapet at least, adorned with pictures of the king as subjugator of foreign peoples, and finished off with a cornice and a *chevaux de frise* of cobras. The growing size of the structure and the weight of the roofs made this bonding of the columns advisable. The existence of the screen only appears at El-'Amarnah when the baldachin is moved out into the open as a pavilion³; but it is revealed in the later pictures when Tut'ankhamūn, Haremhab, and Ramesses II, III, and IX are seen standing beside the cushioned (front) screen, that is, are shown as seen from *within* by the man who approaches the platform from the open side⁴. Only the extreme right of the structure in our tomb is now extant, showing the hands of the king, one resting on the cushion, the other in attitude of address; for he is issuing the command "Give heed to the divine offerings (the temple revenue) of the Aten" (Pl. XXVII, k).


Parennefer, "royal cup-bearer and chamberlain, attentive daily before the lord of the two lands," bows at the foot of the steps of the throne (Pls. XXII, 2 and XXV). That he has something to reply to the king is indicated, not only by the words written overhead but also by the pose of the hands, which is not derived from nature but from the symbol of speech ⁵. He says: "Now Rē he knoweth the husbandman who gives thought to the temple dues of the god. The husbandman then who does not give thought to the temple


¹ The dais too, as in Tomb 226, shows Syrians ← adoring the united plants which bind them.

² *Bulletin of M. M. A.*, 1915, 233.

³ *El Amarna*, I, Pl. XXXI and III, Pl. XIV.

⁴ See for the subject SCHÄFER, *Ämtliche Berichte*, XL, 54-58.

⁵ It may be that in  the hand is not pointing to, or covering the mouth, but going through the form of washing or wiping it before addressing a superior (see KUENTZ, *Recueil d'Études Égyptologiques*, 601).

dues of the Aten he surely delivers into thy hands. For, though men measure the corn to any god with a stricken measure (, they measure for the Aten with piled-up *hekats*¹."

Parennefer seems to have held, besides most other posts, the office of overseer of the granary (p. 139), and it is in this capacity that he appears in this scene. Indeed, he stands here within the building, which consists of a great open court, planted with a row of trees (Pls. XXII, 2 and XXV). Beyond these are two enclosed storeyards (*shūnahs*) filled with piles of grain. These are ranged so as to overlap one another, both in breadth and depth². Their outlines are completely filled with painted grain, now almost invisible and only shown here and there in the plate. One of the two varieties is drawn as if the grains adhered in pairs.

The courtyard is a scene of activity. In the lowest register we see a pile of grain being measured by a gang of ten men, whose labour is controlled by three scribes. Other labourers bring the scattered grain together by means of besoms and winnowing scoops. As usual, there is a superfluity of scribes. A second group seems to recall the previous operation of winnowing, though the actual process is not depicted. The poverty of designs bearing on civil life during the revolutionary period is already exemplified here; for the upper register is little more than a repetition of the lower. A running text above the grain-heaps has suffered erasure; it perhaps identified them with the dues of the Aten; for the measures used, it will be noticed, are piled-up ones³.

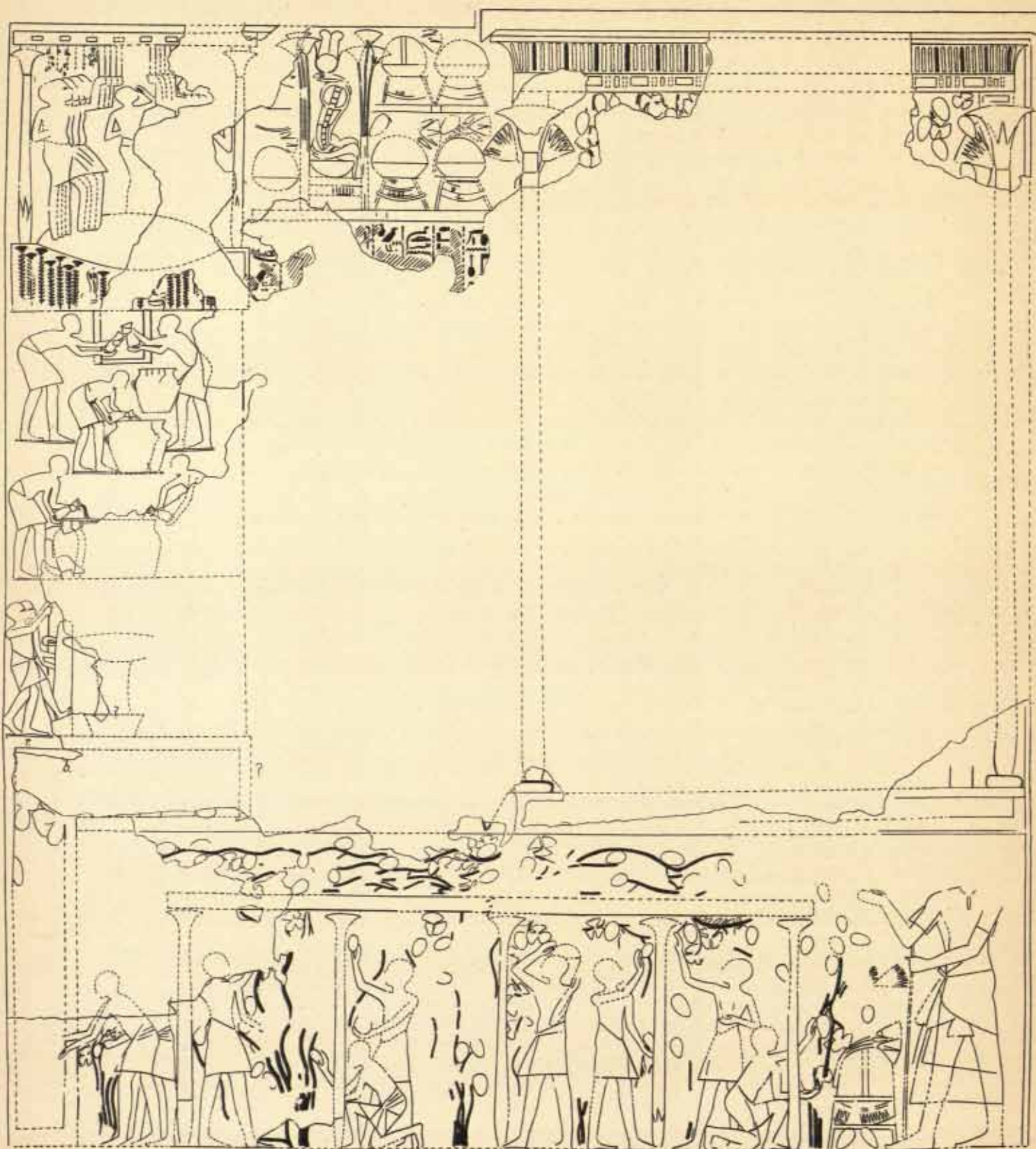
We now pass into an outer courtyard of the grain-yard. But just before reaching this point the artist, growing tired of the relief he had been carrying out in plaster, abandoned this for flat colour, in which medium he executed the rest of the scene, and, as far as can be judged (the effects of the fire having been allowed for), without any great merit.

The door in the wall of the *shūnah* (repeated in both registers), strangely enough, is not set in the wall (though figures are placed there, interrupting the line), but in the middle of the courtyard, and men are there shown passing through it. In the line of the wall a second man → lifts grain in a measure; sacks are filled by it, lifted on to men's shoulders, and carried off through the door, a sweeper keeping it clear for their passage. One of two such men empties out his sack on to a pile, and has it checked by overseers ←. The scene in what is now the middle register is almost identical, men carrying sacks → through the door in the middle of the space, as below. In the topmost register P. → is seated near the wall. Before him sit two scribes, one of whom turns his head round to speak to P. The text is so damaged that the exact words are lost. "He says 'How good it is. (If) what thou doest did not prosper (?), no man would live'" may be the import (Pl. XXVII, l). The other scribe → levels off with a striker the corn which a seated over-

¹ For piled *hekats*, see DAVIES, *Tomb of Puyemré*, I, 87, 88. The determinative of the verb *hḥj* is then not a finger but a striker taking this shape, the finger having been the primitive instrument for small measures. The translation of *pt wnn* by "for" I owe to Dr A. H. Gardiner.

² There is in this no real sense of perspective, the group of heaps being dealt with as with a crowd of men, one head being ranged above the other as well as to the side. These are piles, not bee-hive granaries, as may be seen from WRESZINSKI, *Atlas*, sheet 403. The artist, however, himself seems to have hesitated; for he drew a sketch line across the top, as if to show a movable cap. There is a similar picture in Tomb 48, of which this may be the copy.

³ Thus the position of Amūn was entirely reversed. Instead of taking the lion's share of the revenues of the gods and making thin doles to the lesser shrines, he already found himself one of the crowd, whose dues were reckoned in bare measure, while those of Aten were delivered in such as ran over. The high heaps in the storeyard and six tiny piles which we shall see outside are an effective commentary on the turn of Fortune's wheel.



Scale $\frac{1}{4}$

VINTAGE: TOMB 188.

seer ← extends to him in a measure (Pl. XXVIII, B). This staff is adorned at the end with an erect cobra, just as the official corn-measures bore the uraeus-crowned ram's-head of Amūn¹. Whether this stands for the harvest goddess, Ernutet, or, being all that was left after the removal of the ram's head of Amūn, still served as a warning of divine wrath against falsification, is not clear. Near the overseer are six little heaps of grain, doubtless sample *hekats* which are being delivered. Above this overseer sits another ←, who touches with a striker one of two similar little heaps of grain. Close by are ranged four jars, which probably are measures too². Three scribes ← behind the men jot down the deliveries. I can make nothing of the little texts appended, so bad is their state. The painted division which here extends from top to bottom of the wall forms the outer wall of the building and the limit of the scene.

Beyond the division, the wall holds a sister scene recording the delivery of the products of the vintage, the ingathering itself being shown on the adjoining north half of the east wall. There is an upper and a lower picture, each divided into two registers. On the left of each picture is a figure of P. → with a text above and behind him of which little can be made.

Of the text containing the address of P. in the lower division I can only make out ".... if men shall say to you 'Bring it,' bring" (Pl. XXVII, r). P. here stands, leaning on a staff. In the lower of the two registers before him five men face ← him in a respectful attitude. A man brings ← a stand of flowers and a spray of vine. Another kneels or sits →. Two or three men bring ← bouquets. These last are set against a background of vines with pretty effect. In the upper register a man prostrates himself ← before P. Above him are grapes and flowers. Behind him six men bring ← grapes and bouquets in baskets and on stands. The text is illegible.

In the upper picture the text over the standing figure of P. → reads "The favourite, beloved of the lord of the two lands, deeply enshrined in the heart of the good god, the royal cup-bearer, etc.... P., [says] '....wine.... as Rē³....in Men....'" In the lower register a man brings ← a basket of grapes. Another brings two made-up bunches attached to the end of a yoke formed by lashing papyrus stems together, leaving the heads at the ends. Then a long array of wine jars is being sealed (Pl. XXVIII, A). One man moulds → the clay over the mouth and another applies a stamp (dipping it first in water carried in a saucer⁴). These men are again set against a background of vine to give decorative effect. In the upper register a man → arranges on a stand a series of wine jars covered with sprays of vine. A man → is imprinting a stamp on the side of the neck of one of the jars (Pl. XXVIII, C). Behind is a long range of wine-jars and, below them, baskets of grapes, flowers on stands, and other offerings.

The scene of vintage on the adjoining wall (L) is much injured and very hard to make out (Pl. XXVI, from a rough tracing). At the bottom we see a vine which runs along the top of a pergola supported on five blue papyrus columns⁴. The overseer (P. ?) sits on the right.

¹ Cf. *Theban Tombs Series*, III, Pl. X. In Tomb 86 the end of the measuring rod is attached to a flat rod like that shown here, on top of which the ram's head is placed; so that it may be a combined winding-stick and striker.

² *Loc. cit.*, Pl. IX, affords an almost exact parallel.

³ This may be the jar found at Akhetaten with the name of the master of the vineyard, Parennefer ! (PEET, *The City of Akhenaten*, I, Pl. LXIV, no. 33).

⁴ Cf. *Theban Tombs Series*, III, Pl. XXX.

Men gather the bunches (these, as well as the columns, the trough, etc., are incised, though all the rest is in flat paint) and a servant on the left empties them into an L-shaped trough which is already well filled. The extraction and storage of the wine is depicted on the left side of the scene above. Use is first made of the fixed wine-press (top register). Here eight workers stand up to their ankles in the mass of berries. The man in the centre appears to be chanting to the monotonous and wearisome lifting of the feet, in order to keep his companions in heart. The convention by which the circular shape of the pile of grapes is indicated at the cost of the straight lip of the vat is noteworthy. The decorated front of the reservoir where the vent and collecting-basin lie is shown *en face*¹, and is thus connected up with the next incident (below). Here the juice is being dipped up in little jars and then poured into larger vessels which stand ready in rows. In order to extract the liquid still held by the trodden mass, this is put into bags, which are then twisted by hand-spikes between two fixed posts, and the goodly stream of juice which exudes shows that the second pressing repaid the trouble². After the vintage comes the thanksgiving to the gods and the rendering of the account. An image of Ernutet with tables of grapes before her shows that she still retained under the new influences her position of patroness of the fruits of the earth. The loss of the rest of the scene points to malice, and indicates that the king sat in the kiosk of which the platform and the roof alone survive. From the remains of an inscription we learn that P. stood → before him and made report of the vintage.

At the top of the return wall of the pilaster (Pl. XXVIII, M) close by one can detect a painting showing five men gathering small fruit from trees. A boy climbs into one to hand down the fruit. Men collect it in tiny baskets, and then transfer it to larger ones.

The scene on the west side of the doorway (O) is almost destroyed. It showed the king → (near the doorway) offering to Rē-Harakhti on the top of a corniced altar, like that at Dér el-Bahri. The ramp (or stairway with parapets) is seen, and the king's feet on a level with the altar or platform to which it ascends. Three figures of hawk-headed spirits → are shown in the attitude of chanting (*hnw*) on the side of the ramp. The top of a *khepersh* helmet and the bottom of Amenophis IV cartouches are discernible, as also the hands of the sun; but these seem to spring from nowhere, for a flying vulture (?) is in the top left corner where the source would lie. Behind the king is written "An oblation of [all kinds of] flowers, good and pure, for the living Rē-Harakhti rejoicing (on the horizon) in his name of the sun who is Aten [by]", lord of the two lands, beloved of the god, king of south and north Egypt, [Nefer]kheprurē-[Waⁿnrē]. . . . heaven, thy annals are . . . on earth . . . in the heart of Horus . . . the royal cup-bearer and chamberlain, [Paren]nefer" (Pl. XXVII, m)⁴. The feet of P. behind the king can be seen, and a derelict fragment shows that his neck was loaded with gold collars, and that he carried a bouquet and papyrus. Behind P. a bouquet is visible, and a pile of offerings with a censer on top is in the hands of an officiant⁵. Beyond this point to the end all that we have is a strip at the base and at the top of the wall.

Next is seen the ramp of another altar or platform, the latter decorated with ten *rekhyt*

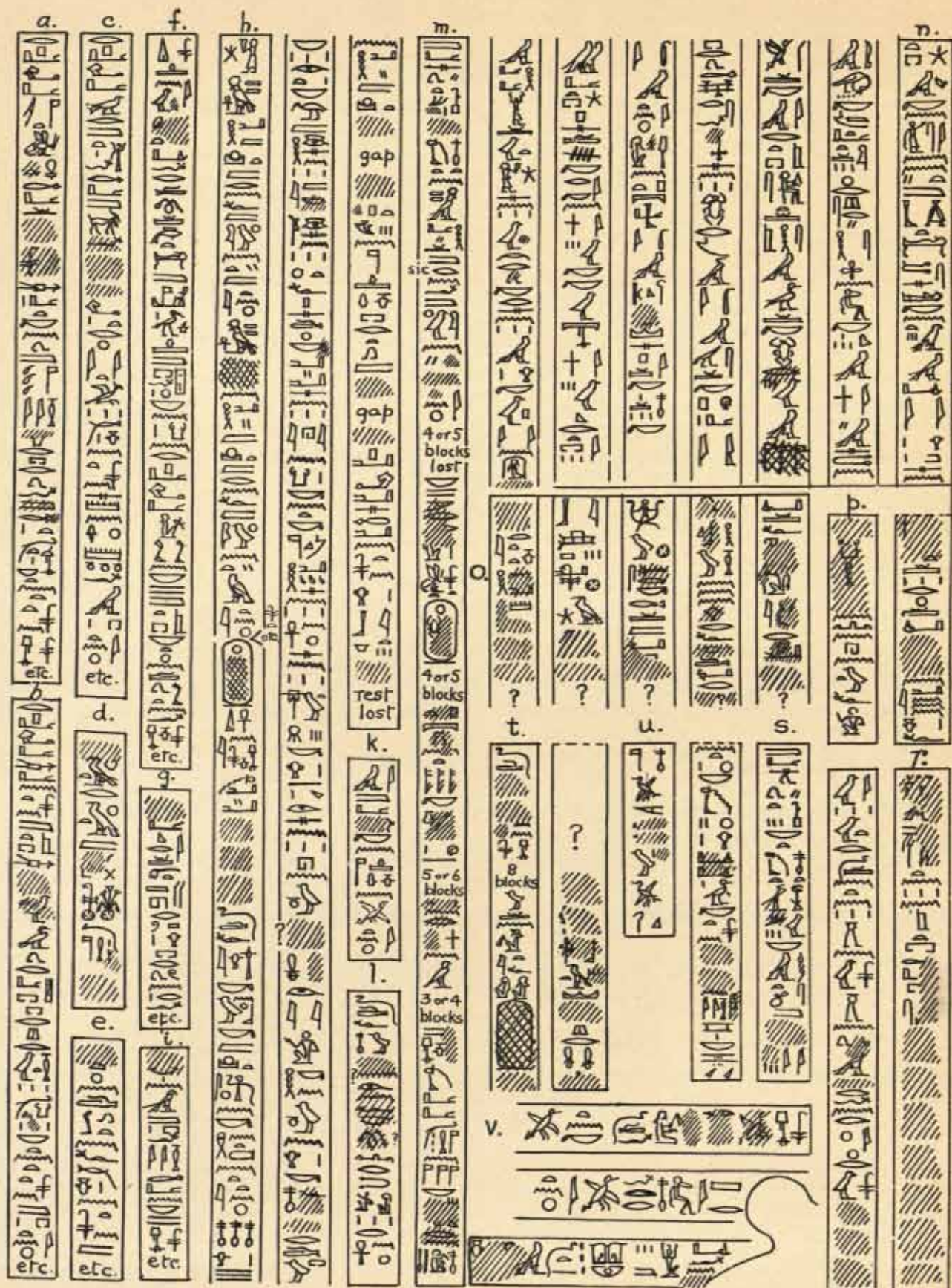
¹ So in Tomb 49 (WILKINSON, *M. and C.*, 1, 385).

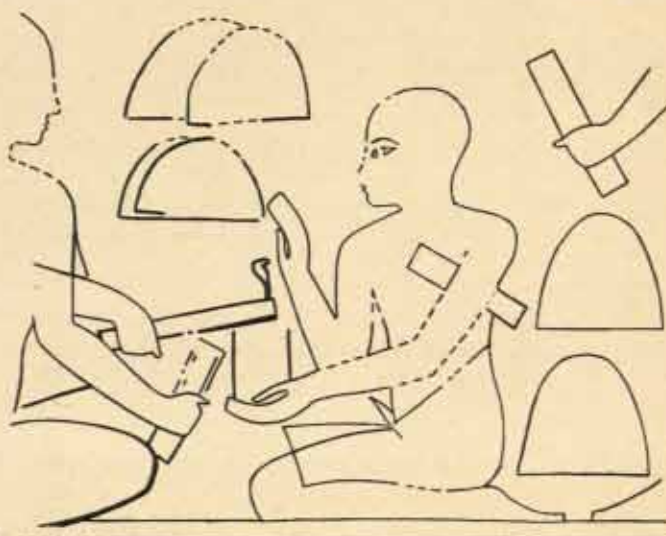
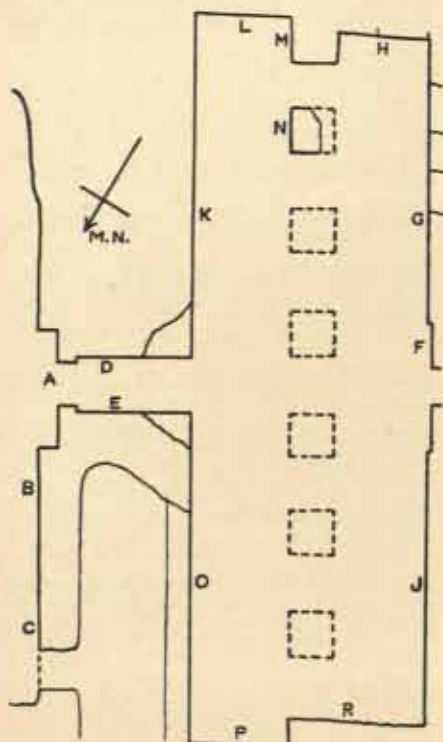
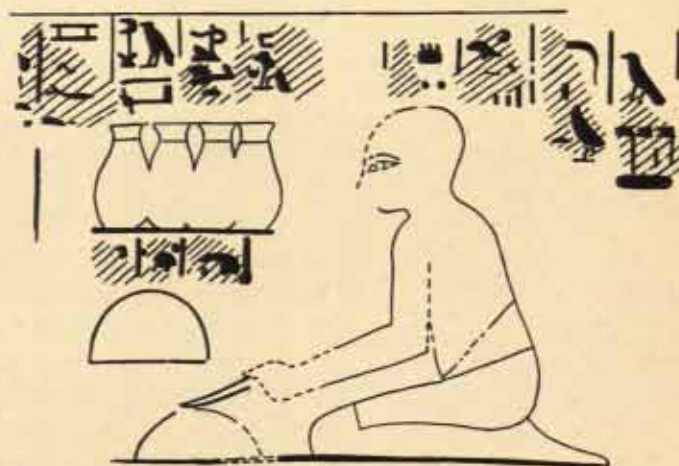
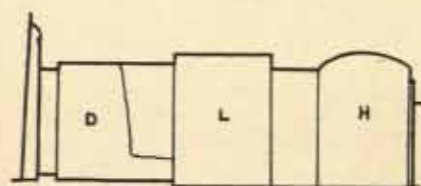
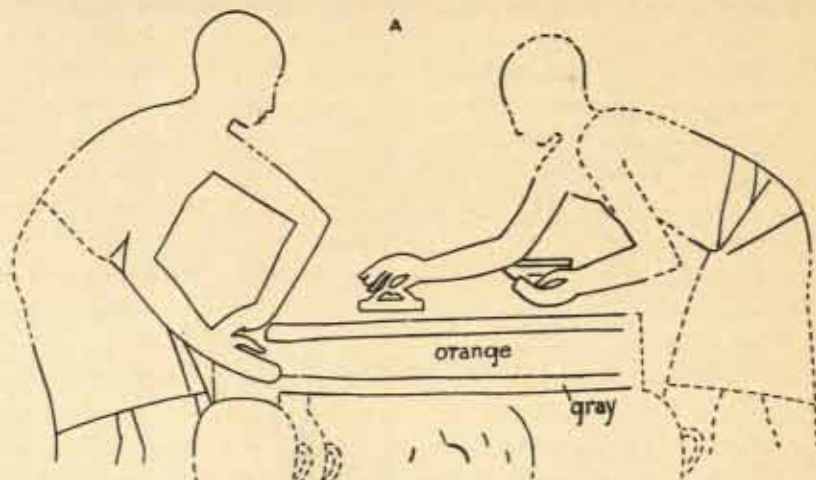
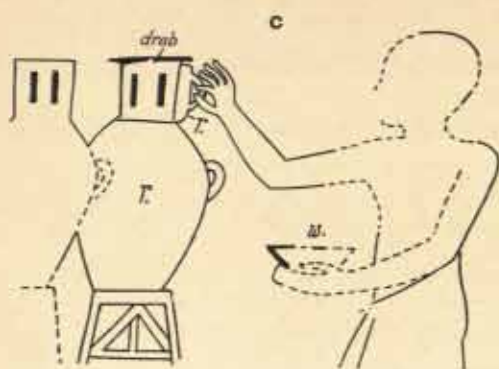
² See DAVIES, *Tomb of Puyemrē*, 1, 64, 65. A reference might be added to CAULFIELD, *Temple of the Kings*, Pl. XX.

³ Here an erasure of perhaps six blocks of signs.

⁴ The end of the name is on a fragment which fits on to the extant text. Having fallen from the wall before the fire occurred, it shows the original relief and colour: both are quite good.

⁵ A fragment shows a hand of the sun accepting a flame of incense.





Scale 1/2

PLAN AND EXCERPTS: TOMB 188.

birds → on ∪ signs and, above this, with a series of figures, the cartouches and epithets of the king being appended in painted columns. The last to the left shows a figure in the *hnnw* attitude "making *hnnw* to the king...to whom life is given." A derelict fragment shows the cornice of such a platform with the leg of a large running or kneeling male figure → (the foot concealed by the parapet) and a row of little apes kneeling → in attitude of adoration on the cornice. Further to the left one sees a slaughtered ox and then the bases of seven columns, and, as the top of the wall shows a long cornice whose left end is supported on four remaining papyrus columns, there was probably a colonnade of about seventeen columns both at the top and at the foot of the wall, with Parennefer advancing → down the open space between; for we see a figure at the left edge and behind it a string of the epithets he loved to add to his name.

The adjoining wall (Pl. XXVIII, P) is also in a sad state of decay. On the left of the upper half a figure → of P. can be seen on the left, and, moving from him (perhaps to the colonnade just described), are men → carrying gifts and driving cattle in two registers, led by a large figure of P. (?) presenting papyrus and a bouquet. A text before him on the extreme right reads "Bringing all kinds of flowers, good and pure, all manner of sweet-smelling herbs... daily doubly pure, on the hands of the servant, the royal...favourite and darling of the lord of the two lands..." (Pl. XXVII, s). In the lower picture the movement is in the other direction. Men carry ← stands of flowers. Behind a large figure on the right ←, followed by a servant, one reads "...to him who does not give heed (?), [great] of wealth and knowing him who gives it, to whose heart [Aten] brings delight¹." The one extant pillar shows on the west side P. ← being presented with cloth by a servant, and on the north side (N) there is written over a man ← approaching P. "...milk and...the specialities of the south...Cusae adorned with...cold water on it...May he grant the prayer (?) of (?) the prince...etc., [P.]" (Pl. XXVII, o). Something more (and perhaps different) might be made of this.

The ceiling pattern in the south aisle is formed of concentric circles of colour². The texts here and on the architrave are indecipherable, except for one phrase "...offerings which have gone up in the Presence on the altar of..."

TOMB 55. A large part of the decoration here may date from the last year of Amenophis III, and most of it, being completely in that style, does not come within our purview. Its novelties, too—the array of relatives, the depiction of burial rites in the outer hall, and the general poverty in subject-matter—are Ramesside rather than revolutionary. They betray however a spirit of criticism abroad, which was quite independent of the religious reform. As some controversy has arisen about the face of Amenophis IV in the old style here, I would like to say that in my judgment not only was it originally drawn for that king, but that it has never suffered alteration at any time. So far as one can judge, it never was a careful piece of work. The stone was patched here and there with coarse plaster, as was many a fault elsewhere in the tomb, and this not skilfully, to all appearance. The line of the chin seems to me to have been gone over in modern time by an idle urchin and the true line destroyed. I do not believe that the face ever has been, or could be, so overlaid as to be made to resemble that of the heretic Akhenaten. The pose of the head alone would forbid it, and why should the original not have been cut back, as was required?

¹ Pl. XXVII. Cf. *El Amarna*, I, Pl. VIII; III, Pl. XVII; IV, 3.

² See *Theban Tombs Series*, III, Pl. XXXVIII (B).

If Akhenaten did not like the contrast between the two faces, Ramōsē too would have a strong preference for one of his own two types. And would not the tomb be closed or buried, leaving the contrast, and still more any criticism of it, incomplete?

The addition in the fourth year, which is wholly in the revolutionary style, alone concerns us. The sculptured scene of the royal pair leaning from the place of reception in the palace is well known¹, and as the rest is in faded ink, I am unable to present the complete scene, which closely resembles that in the tomb of Ay².

I will refer only to a few points of interest. We see here the introduction of the palm-column, which was to be such a favourite at El-Amarnah both in representation and in fact. It would be interesting to trace the motives for this resurrection of a graceful form. The panels on the posts of the "window" here are not often found again. Such heraldic designs, based mostly on mythological material, fell into disuse; even the king as sphinx became an unfashionable symbol³.

A point of great interest is the mention here of Aten as a dweller in the chapel "The Aten is discovered" within the temple of Aten. This is probably a part of the temple at Karnak for which Parennefer, and others, were busy about this time (p. 138)⁴. How far it was completely new and how far Aten played the part of a cuckoo's egg in existing places of worship, we cannot yet say. The name is a faction cry: "Eureka!" Aten had long been known, but it had been left to Akhenaten to discover his real nature and supreme dignity. He was not an invention of the king, but a revelation to deeper perception. He was in fact old; old as the oldest god, the equal of Shu at least, and soon to become Father Rē^c himself. With a few years acquaintance, he had become an object of love and the possessor of personality. To official language he was still Aten; but in the mouth of Parennefer he becomes at once "the Aten," almost "our Aten"; for there is a sense of nearness about the article, and Rē^c too benefits by the mood of the speaker and becomes Pa-Rē^c (Pl. XXV), the Phrē^c of after days.

It now remains to point out what may be learnt from the facts thus barely, and perhaps tediously, set forth.

The astonishing aspect of the movement is the speed with which novelties were adopted, not so much in the formulation of the new creed, in which some measure of hesitation and tendency to compromise is manifest, but in matters which have not the least connection with religious thought. The definite rejection of the supreme authority of Amūn and the attack on the great economical organisation which had grown round his cult, seem to have taken the enemy by surprise and been a complete success. The bewildering shock brought everything tumbling. The perception that the granite colossus had a base of common clay rendered the idlest dream feasible and gave room for every doubt. Men gaped to realise how small had been their faith, and how weak a sanction there was for things they had

¹ VILLIERS STUART, *Egypt after the War*, Pl. XV; VON BISSING, *Denkmäler der Kunst Amenophis IV*, Pls. V, VI. For a parallel scene, uninjured and perhaps a copy, see PRISSE, *Monuments*, XI, 4.

² *El Amarna*, VI, Pls. XXIX, XXX.

³ That in PRISSE, *Monuments*, Pl. X, 2, dates from the early years.

⁴ The sanctuary of Gematen in the temple of Aten at Karnak is mentioned in a scene from it of the fifth year, showing two daughters and the early names (PRISSE, *Monuments*, XI, 3). The new style of drawing is not used in this temple scene, though another block from the same source is (*ibid.*, XI, 4). This is almost a replica of that in Tomb 55 and must come from the exterior as at Medinet Habu (SCHÄFER, *Ägyptische Berichte* XI, 58). Thus there were still scruples about using the new mode at Thebes at this date.

done unquestionably from childhood. Not but that custom, like a gyroscope, kept men upright as the ground slipped from under them, and the old ways were trodden in nine cases out of ten. But who dared new thoughts and unprecedented acts was now the loyalist and had reward, and this was in itself an intoxicant. Amūn the turgescient may have challenged the position of the king and the bureaucracy, and the theological ground was prepared, we know, for a protest against his pretensions to solar headship. But whence came the simultaneous movement towards novelties of all kinds, from the shapes of tombs to the shapes of heads, in freedom of ornamentation and in freedom of women, in tricks of custom, new forms of courtesy, and changes in grammar? Evidently a spirit was stirring, and the signs of it in these Theban tombs of the very first years of the reign are all one way, pointing straight towards the goal that was reached ten years later, or anticipating it by a sudden leap.

The change of tomb plan that is evident at El-'Amarnah had already begun in the last reign (Tombs 48, 55). Tomb 192 seems also to have been planned for it, and, if Tomb 188 is too small, both of them show the new feature of a recessed entrance and a re-arrangement of scenes to meet the new dominance of the king. This recess and Parennefer's sculptured façade did not persist; but the readiness for novelty and transformation is all the more striking.

A change in art-forms is still less closely connected with changes in thought or politics. In my contemporaneous article in the *Bulletin of the Metropolitan Museum* I have indicated some of the steps by which the change in the rendering of the human figure may have been reached. In what we have of Tomb 192 there is little or none of this, indeed scant place for it. The outline and execution is in kind and quality that of Tomb 57. In Tomb 188 we have slight adumbrations in the rounded and bending forms and the prevalence of shaven heads. As the royal figures there have been totally obliterated, we cannot say what type they assumed. They were probably perfectly normal, and I suppose Nefertiti will have closely resembled the Ty of Tomb 192¹. But with Tomb 55 we leap, one or two years later, into the full art of El-'Amarnah. What is mysterious can only be explained by mystery, and the only miracles allowed to the historian are those of human personality and national character. That a Theban artist was capable of the change was, I think, evident; that he made it in that *annus mirabilis*, the fourth year of Akhenaten, can only have been due to the king's despotic initiative. The appendix to Tomb 55 cannot be later than the end of the fifth year because the names "Amenophis" and "Nefertiti" are by then things of the past. But it must have taken place before the resolve to remove the capital to El-'Amarnah was made, since this picture is not a parting shot at the defeated party, but a great project for the completion of the tomb. By the middle of the fourth year it was decreed that "the tombs of the officers shall be made in the mountain of Akhetaten"; the addition, then, must have been made before this date. For it is impossible to think of it as a deliberate archaism, the now hated name of Amenophis being disinterred to harmonize with the date of a disused tomb².

¹ We might take the picture of the king on the Louvre block (Pruess, *Monumenta*, x, 1) as typical of the presentation of this period, were it not that it seems to be a sample of lifeless temple-work, such as might be of any period down to the last dynasty.

² Probably work was already going on feverishly at El-'Amarnah in the third year. I see no reason, by the way, for dating the wine jars of the first three years of the reign found there to anyone but Akhenaten (Griffith in FERNIE, *Tell el Amarna*, 32). The great delivery of oil of the second year would be made to meet the needs of the body of workmen suddenly sent to an uncultivated district; by the end of another year local supplies may have been utilised.

Now the radiant sun was an invention two years old; the fashion of the royal faces and figures would be subject to the whims of the king; the cringing officials may reflect the super-sanctity which the king found it necessary to claim for his person. But the design of the "palace window" is really amazing. Here is an elaborate design, almost totally novel, extraordinarily artificial and sophisticated, quickly invented to meet a new situation (the incoming rays¹), and yet as detailed and certain of itself as an architect's projection. It must, I think, be a distorted reflection of the throne chamber at Malkatah, showing a canopied throne with single roof, supported on posts², with a screen wall in front, and the whole set in a hall of four palm columns. So far from being borrowed from El-'Amarnah, I believe that it was so admired (as being far from any reality) that it was used as a model there, and was but little altered to suit the new conditions³.

Technique in art is in even greater degree a thing apart, and when we are confronted by the alteration in this respect which is one of the marked features at El-'Amarnah, we must admit some force in Egypt at this time besides, and perhaps behind, the personality of the young king. Any dragging in of a conjectural provincial school of art is however discountenanced by the evidence I have adduced. The refinement and luxury of the time of Amenophis III naturally gave rise to a demand by patrons and artists alike for sculptured, rather than painted, tombs. Hence the fine work in Tombs 48, 55, 57, though the wielders of the brush made a spirited defence in Tomb 226 and the south wall of Tomb 55. But when natural stone failed, as in the greater part of Tomb 188, what was the artist to do? We see that his courage and resources did not accept defeat. He set to work experimenting in three several ways. In the first place he tried incised work (p. 140), which, up till now, had been confined to exteriors. By working in this mode while the plaster was still wet, the task was easy, as the ground was already given and the line soft. Moreover as all incised work becomes *relief en creux* as soon as the surfaces are at all extended, since it is even easier than purely sunk figures and vastly more remunerative in effects, this was in reality the beginning of the employment of that method of decoration which was invariably used at El-'Amarnah and preponderatingly in later times. The difficulty in the case of large surfaces would be that the plaster dried too rapidly; hence the artist of the tomb of Penthu at El-'Amarnah experimented further and cut out a matrix for each figure, which he filled with soft plaster for final moulding. This was tedious and not technically perfect, but with patience might have been a great success.

The second style which the artist of Tomb 188 adopted was high relief in plaster (Plate XXIV, 2), treating it as if it were stone. The surface seems to have been cut down when it was dry, and the figures left in relief worked over with wet plaster to soften the harsh and crumbling lines of the knife, and to build them higher. This method was a great failure in the case of the hieroglyphs, and only partially succeeded because all the figures treated thus were very large. Fine work was impossible, as the plaster used was of the very coarsest.

¹ Some enemy seems to have cut through all the rays in Tomb 55 to neutralize their benevolent intentions towards the royal pair.

² For posts see the baldachins in Tombs 48, 226.

³ The nearest resemblance to the "window" of Tomb 55 will be found in a tomb of the twelfth year or later (*El Amarna*, II, Pl. XXXIV). The subject is so interesting that I shall hope to treat of it separately before long.

⁴ The addition to Tomb 55 shows that the artist was glad to use pure relief when, on rare occasions, the quality of the stone permitted it.

The third style was an attempt to imitate in plastered tombs those low reliefs which are the triumph of Egyptian art by moulding the plaster while soft. I am unable to say quite definitely how it was done. There are lines which cut down into the stone through the thin coat of plaster. Hence the outlines seem to have been traced with a knife in order to remove the field around them, and the figures were then worked with a blunt tool on this basis. The results are very pleasing, but do not suit dimly lighted chambers; for the plaster being, at times at least, over-soft, the outlines swam a good deal and, though this softness and indefiniteness are pleasant features, they are apt to result in very confused lines in involved groups, and in any case need a raking light to display them. The artist was quickly discouraged; but the difficulties ought to have been surmountable to greater precaution and intelligence; though of course the higher the relief and the sharper the line, the more open they would have been to injury in this soft material.

The flat painting in the tomb does not seem to have had much merit, though it is hard to judge now. Here too the artist experimented by sinking the salient features of the design. I think this would have succeeded least of all, and I know of no revival of it. What is interesting is to see that the peculiar technique which gives so much individuality to the sepulchral art of El-Amarnah was a Theban invention of the second or third year of the reign, and the result of experimental attempts to overcome the ever-present difficulty created by the vile materials used by the demiurge in the manufacture of the Egyptian mountains. The courage, the ingenuity, the inventiveness, were all Theban.

Finally, what is the evidence of these tombs on the development of Akhenaten's heresy? The vizier Ramōsē in the first year is frankly at the old standpoint, saluting Amen-Rē-Tum-Harakhti, "to whom the gods come with obeisance," as he leaves his tomb, and the gods of Dat as he re-enters. Tomb 192 shows little more than an emphasis on solar worship (lintel). The formal title of Rē-Harakhti does not occur, nor Aten as god¹. The change therefore comes swiftly with the second or third year when in the entrance to Tomb 188 Harakhti has acquired his formal epithet and is worshipped along with the royal spirit. There seems even to be a development within the tomb, where the radiant sun appears² and the definition of Rē-Harakhti is enclosed within cartouches as the didactic designation of Aten.

The picture of the radiant sun is a substitute for the sun-disc, the bird-goddesses of Egypt, etc., which in the old designs were seen holding out symbols of life, etc., to the king. But the simple device ended by conferring on the new god the enormous enhancement of a bodily form, and that too one which was no longer merely pictorial (since no intelligent man can really have believed in the bi-partite forms of Harakhti, Amen-Rē, and Anubis), but one really existent, while the semi-spiritual, semi-real, aspect of a god dwelling in heaven yet daily sensible to eye and frame on earth, was now hardened into a more concrete form by these unnumbered and caressing hands, which gave a needed human touch to this true king of earth and sky, the daily dispenser of life and happiness. As the vague place of Rē of Heliopolis had been filled by the more familiar Rē-Harakhti of Edfu, so he in turn had, by a subtle shifting of emphasis (Rē-Harakhti = Shu = Aten), to give way to a new deity, first of Thebes, then of Akhetaten, to whom the king knew how to impart within a few months real personality, though only his few real adherents appreciated it. Amūn was thoroughly deposed. With Osiris there was more difficulty, since he was enthroned in the

¹ I cannot be sure of the existence of the radiant sun there.

² The façade may have been decorated last of all.

hearts of the people, the other mainly in the ceremonial of church and state. If it was hoped that Aten would overshadow Osiris as king of the underworld, great caution was needed and was exercised. In Tomb 192 Osiris plays a very important rôle. In Tomb 188 he still has a place with Anubis on the door to the funeral chamber; Parennefer is even addressed as "Osiris P." and though the absence of funeral scenes may only mean that they were reserved for the inner room, the blank walls already reflect the later habit. The failure of Atenism to present any vivid and detailed hopes for the future life in consonance with its theology led to the neglect of this important side of tomb decoration, and may have been a main cause of its final failure. As a personal and political god Aten had a certain success; as a cosmogonic god (in the final form of his name "father of Rē")¹ and as the arbiter of human fate he distinctly failed.

The title "monotheism" has been freely, and with a certain unction, bestowed on Akhenaten's faith. The deletion of the name of Amūn only displays a political and particular antagonism; that of the word "gods," however, is on a different plane, and does indicate a theoretical monotheism. But that exists also in many very imperfect religions. The preservation of the "Amen" when it occurs in Akhenaten's baptismal name shows how opportunist the king was. The retention on tomb walls of the names of Osiris, Isis, Anubis, Hathor, Geb, Thoth, Ptah, Nu, Nut, and a whole motley crowd of semi-divine personifications, proves how reticent and diplomatic Atenism was in its application of the central point of its creed, and how little in advance of previous solar theology in this respect². In practice it proved little more than a beautifully expressed and humanized henotheism, and this entirely accords with all we know of burial practices under the creed. If the abstract will could have been taken for the deed, we should have no doubt have been able to deliver a very different judgment; but it is exactly in the conviction of the supreme importance of the unity of the godhead in the government of the universe, seen and unseen, that the value of monotheism lies. The dismissal of the other gods from practical politics and local worship, and the advance of Atenism towards a universal religion were enormous gains. But, though such a compromising faith was the only possible and immediately effective state-religion, and though Akhenaten risked much in carrying his ideals as far as he did, he did not furnish either an ethical or a monotheistic system. Had it been so, it could only have been a success as a personal creed, the impossible religion which is the only gospel. The cult of the Aten, as it actually was, does not justify exaggerated descriptions of its ideal content and motive power³.

I have passed without further notice the erasure of a single group "Hor-Aten and the....of Hor-Aten" on the east wall-thickness of Tomb 188. The first impression is that it originally read "son" and that it was erased by the reactionaries, since this claim of the king, though innocent enough by the side of "son of Rē," was properly suspect as being novel and in the line of the heretical substitution of Rē-Harakhti for Rē himself. But when one compares the inscription in LEPSIUS, *Denkmäler*, III, 110 i, and notes that the erasure, unlike others, has been made good with plaster, it becomes almost certain that

¹ SETHE, *Beiträge*, 118. PEET, *The City of Akhenaten*, I, 147, translates "Rē the father," which seems to me much preferable.

² Parennefer is still "superintendent of the priests of all the gods" (Pl. XXVII, m).

³ These reach turgidity in WEIGALL, *Life and Times of Akhnaton*. I may perhaps draw attention to recent applications of science and sanity to the subject in SETHE, *Beiträge zur Geschichte Amenophis IV* and SCHÄFER, *Die Religion und Kunst von El Amarna*.

what stood there was "the chief priest of (Hor-Aten)," and that the erasure is at the instance of Akhenaten himself who, as soon as he perceived that the worship of Rē-Harakhti-Aten was not to be the goal of his search for a supreme and uncompromised solar deity, abandoned a title which he had assumed in order to make clangorous demonstration of the changed religion of the reigning house. The first high-priest of the new god, or of the old god in his newly revealed dignities, should be the king himself. Having well launched his god on the parabolic ascent in which the nebulous divinity rapidly became a clear star of the first magnitude (to become stellar dust again as soon), he relinquished the singular office, probably when his *sed* festival was celebrated in the newly finished temple at Karnak in his third or fourth year¹.

The reading "son of Harakhti" is still possible, and there is no doubt that the king insisted on a very strict acknowledgment of the semi-divine position given him by his special relation to Aten, a position which, apparently by her relation to him, was extended to the queen, who shared the attention of the rays of Aten and the prayers of their subjects, tempered though this high claim was by their exuberant acknowledgment of their humanity and by their apparent affability towards their people². What exactly this sonship meant was never defined. As the one to whom the revelation of the true form of the god was made, Akhenaten took a prophetic position. The address "fair child of the Aten" was one he evidently liked, but which had no theological significance, any more than a later poetical expression, "formed out of the rays of the Aten." The insistence on his god-like rank was dictated, no doubt, by diplomacy rather than any theories of his relation to the god-head, and hence it is stronger in the early years when, in Tomb 188, we see him ranking just after the sun-god³.

¹ I think it extremely likely that in the stela at Silsilah, quoted above, the expunged name is that of our Parennefer, "superintendent of all the works of the king in the temple of Aten," whose name is similarly erased in his tombs at Thebes and El-Amarnah. This stela must date to the very opening of the reign. Indeed I believe the phrase "first occasion of the king" to refer, if not to the regnal year, then to the first official act of the king. So near to the accession is it that the stela is almost a proclamation of the titulary: "May the king...live, and may Amen-Rē, lord of heaven, live for ever! First occasion of the king (being named?). A commission of [Parennefer] to (quarry stone for an obelisk for Rē-Harakhti-Aten in Karnak)." The formal recognition of Amūn by the king probably did not last more than a year or so at most. Harakhti is already here given his relation to Aten and the king's first efforts are to honour him, not Amūn. Akhenaten's Golden Horus name here "Great of kingship in Karnak" was changed by the sixth year to "in Akhetaten." Harakhti seems to have a seat at Thebes in the time of Tomb 188. Probably his temple for which the obelisks were destined is also "the house of Aten" mentioned there. The temple and its sanctuary were in use by the beginning of the fourth year (Tomb 55). This is quick work; and we may suspect that the movement was in train and Akhenaten high priest of Harakhti before Nebmātrē's death.

It is just possible that in the Gayer-Anderson block (*J. E. A.*, v, 62) we should read "Neferkheprurē-Waṇrē, high priest of [Hor-Aten]" (as title of the king offering ointment to Aten in the left-hand chamber, perhaps), instead of seeing in the king's body-servant an "ḫm ḥnt (?), chief priest of the king." The phrasing would be exactly as in the citation from Tomb 188. If so, the king only transferred his priestly service from Rē-Harakhti-Aten to Aten pure and simple.

² No care is taken to make the rays extend over the children or to caress them, still less over common men.

³ A parallel boldness of association is shown in formal superscriptions at El-Amarnah, where "the two fathers" (the god and the king) are given their titularies in this order (*El Amarna*, i, Pl. XL; ii, Pl. V; iii, Pls. XXI, XXVII; vi, Pl. XXXII). I did not at that time appreciate the exact meaning of the double determinative to "father" (*loc. cit.*, ii, 15). This equation of the universal fatherhood of the god with the

The worship of his father by the king in Tomb 192 (as at Soleb), and the title "image of the sun-god¹" which he assumes there, show that he renounced none of the claims of an Egyptian king to divinity, though his early abandonment of the title "bodily son of Rē²" in favour of the epithet "the son of Rē³ who lives on truth" proves that he did not descend to a vulgar interpretation of his relation to the Highest. His monotheistic tendency did not prevent him from using the term "good god" (applied also to the Aten) even more often than other kings. One can imagine that the loss of the banished gods had to be made good. The designer of tomb decorations missed his three or four gods to whom prayers might be made on the jambs, and, if the king and the queen follow Aten there, it was a tactful accommodation, and after all involved them in no greater presumption than the saints of the Christian church.

The selection by the people of Akhenaten's sub-name Wa^cnrē^c, "confidant of Rē^c," as a familiar form of address (already in use in Tomb 188) reflects both the king's own self-appreciation and the popular recognition of his claim to be the founder of the new faith⁴. When used thus outside a cartouche it was rarely the subject of hostile attack; perhaps the reactionaries were also diplomatic in their turn (for it was not every king who achieved the popularity of a short name), or, it may be, only negligent.

The exact attitude taken to the person of Akhenaten by the victors in the religious struggle does not seem to have been defined. His heresy did not nullify his divine right to the throne, since the claim of his daughters was acknowledged. Having no cult, his figure may be missing from the tombs of officials, but that does not prove that he was excluded from the line of kings. Rather, like Set or Satan, he was a divine miscreant, though in a small way. He scarcely had the dignity of a heretic. His theology was ignored after his death, not refuted. His gods, Rē^c-Harakhti, Rē^c, and even Aten, do not seem to have lost any repute in consequence of the use to which he had put them. Amūn recovers and strengthens his position; that is all. Akhenaten's religion fell too nearly within the frame of Egyptian thought and sympathy to be proscribed. It was in undermining the unity of Egypt, the magnificence of her temple service, and her imperial prestige, that he most offended, and for this his age became to future generations "the days of the Adversary in Akhetaten."

relation of the king to his subjects sounds, no doubt, more presumptuous than it is, but it sufficiently accounts for the curved back-bones of the inhabitants of the capital. Akhenaten might equally well have used the phrase "the two kings"; for Aten was the heavenly king.

¹ See BREASTED's remarks in his *Monuments of Sudanese Nubia*, 88.

² Only on the very early stela at Zernik (LEGRAIN, *Annales du Service*, II, 259).

³ This is weakened if we accept Sethe's translation, as perhaps we should, "Rē^c is (or "was") the only one." The name in that case would be popular as forming a battle-cry of the schism, like that of Islam.

THE ANTIQUITY OF EGYPTIAN CIVILISATION

BY PROFESSOR SIR FLINDERS PETRIE

IN an article under the above title Professor Peet has raised an interesting discussion as to the nature of archaeological evidence (*Journal*, VIII, 5-12), and as he has selected all his examples from my own work, I presume that he wishes me to continue the subject. This is not the first such enquiry, as long ago I discussed archaeological evidence in a chapter of *Methods and Aims*, dealing with the early Greek relation to Egypt, now generally accepted.

It seems to be expected that all archaeological evidence should be precise, and that "mere nebulous possibilities and probabilities" are a special reproach to the subject. This condition, however, is much like that of various other scientific enquiries. The many different kinds of evidence about the distances of the stars (except the nearest) are mere possibilities and probabilities. Each of the various arguments about them would be very uncertain if it stood alone; its method is disputed, its results are vague. It is only by the resemblance of the results from different processes that a presumptive validity has been reached, though still disputed. The conditions of measuring out into space are much like those of measuring back into time; it is only by a conformity of different lines of evidence that we can do anything at present. All history is an observational science, dealing with the few materials that chance to be available, like palæontology; it can never be studied as an experimental science, such as chemistry, where a fact can be repeated as often as we like to verify it.

There is another consideration. No view of a subject is invalidated by objecting to the amount of its support, but only by showing that some other view is better supported. There are many scientific views which have serious weakness, and would not be tolerated if there were any more certain position; but indecisive as a result may be, it holds the field until there is something better. It is construction and not destruction that leads men.

Among general principles it may be observed that one civilisation overcomes another when it is stronger as a whole, or in some particular part. Therefore types tend to travel from people at a higher to a lower stage, and not in the opposite direction.

We must always carefully distinguish between forms which are purely utilitarian, and those which involve some artistic feeling or decoration. Necessity of use may lead to re-inventing the same form for a purpose; but anything which is irrespective of the utility is not likely to be twice originated, and therefore indicates copying.

It does not invalidate a conclusion to say that it would fail if the facts were different. Though we may rightly say that there is a certain chance of a fact being different, and therefore only a certain probability in the result, yet that result must stand as the most probable, unless a different basis appears.

Ancient statements, whether contemporary or subsequent to the events, hold the field until they shall have been fully balanced against any opposing facts, and shown to be outweighed by stronger evidence.

As Professor Peet wisely desires to get some agreed canons of archaeological criticism, these points are suggested first of all, in order to see if there is a common basis of understanding.

Now with regard to the objections raised by Professor Peet. First, by the way, it is remarked that I am "an upholder of very high dates." This seems to presuppose a matter of opinion; but I uphold no particular dates, I merely remain in accord with the Egyptians' own beliefs in their history; and I only remain so until anyone will give a greater weight of evidence for some departure from the history of the Egyptians, who were in possession of vastly more written material than we have recovered.

Next he objects to looking at the proportion of graves found of different ages. The ground which I quoted was sufficient to include all the cemeteries of a large district; it contained graves of all periods from the early prehistoric to the XVIIIth Dynasty and the Roman age; it was completely searched, and had been less damaged in modern times than usual. It was, in short, as fair a sample of the country as could be found. It is objected that the density of population might have varied, but that would certainly mean a smaller prehistoric population, when the land was not regularly irrigated; hence any difference of density would imply a longer prehistoric age than in proportion to the whole. There were 1200 prehistoric and 850 historic graves recorded; let us grant that 500 graves might be added to the latter, that would not "destroy the argument" as Professor Peet says, but merely about equalise the historic and prehistoric. Then to be on the safe side let us grant that 5000 (or 3000) years of historic time with good irrigation would leave the same number of graves as 2000 years of prehistoric time with feebler agriculture. Every reasonable deduction may be made, and yet the case stands. It is useless to ask "are we to believe that in 12,000 years [rather 8000] only 2050 people died" in that district. We might as well try to reduce the whole Arab period to one generation because we cannot find more than ten million Arab graves. It is the proportion in different ancient periods, and not absolute number, that must be considered.

Regarding the beginning of Nile deposits. Professor Peet may prefer to assume that the land remained uncultivated although it was peopled. It seems unlikely. The geological changes to which I referred were those during the whole human period, and not "equated with" 20,000 years.

The division of civilisation in periods is plain, to anyone who looks for it; and the two civilisations of the prehistoric are clearly separated by dozens of differences. Strong words are no argument against these facts, which I need not labour here.

As to the flints of Solutrean type Professor Peet appeals to a certain prehistoric settlement as evidence, stating that the flints found there (*Cemeteries of Abydos*, II, Pl. III) are like those which I had accepted as Solutrean. The most typical forms are not in this settlement, no laurel leaf (71), no vesica form (74, 130), no skewed-over point (94, *Ancient Egypt*, 1915, 75). I should certainly not recognise that settlement as Solutrean. Moreover there is no trace of proof that a thin layer of settlement did not chance to be occupied at different periods.

The question of the Magdalenian resemblances depend on a type of flint work (as 183) certainly not "found in practically every neolithic or late palaeolithic deposit known." I have discussed it with many authorities, and all agree in its Magdalenian character. The Danish comparison may be set aside, as not touching the Magdalenian question. The

harpoon may no doubt be found in some other countries far away; but as accompanying flints of peculiarly Magdalenian type it has a distinct value as a parallel with Europe.

In the great mound of Susa we know the rate of deposit for many thousands of years. The evidence of the much deeper strata cannot be set aside on the supposition of a far quicker rate of accumulation. It rests with those who think otherwise to give solid reason for such difference. The proposition that the Elamite civilisation was a stage in advance of Egypt is enforced by the work of the ivory carving of Gebel el-'Araḳ (see *Ancient Egypt*, 1917, 26).

The similarity of flint types is referred to as fallacious evidence of equal age. This ignores the distinction between forms of mere utility, and those of artistic peculiarity.

Now it will be seen that though any one line of evidence may be not conclusive, like the evidences of star distances, yet the fact that they broadly agree in a period gives them far more validity than any single one if it were isolated. It remains to be shewn, by those who may object, that there are stronger reasons for a later date.

Now as this discussion of archaeological evidence has been solely on the matters of early dating, I would take note of some other examples of the treatment of evidence given for late dating.

There have been some articles in this *Journal* about the dating of Mena, and as evidence of connection of date with Mesopotamia we read¹: "One vase and only one is almost an exact replica of the Naram-sin vase, and it belongs to the Thinite period! The vase in question is Maḥasnah no. 18,711 [= Garstang, *Mahasna*, xxxvi, 29]. The material, shape and size are all the same. The alabaster vase Abydos no. 14,448 [= De Morgan, *Tombeau Royal*, no. 823] is very similar in shape but larger. This is an additional confirmation of great archaeological weight." The Naram-sin vase can be seen in *Ancient Egypt*, 1921, 103; and I have added references [] above. There is no archaeological resemblance between these three vases, each belongs to a different family; that called Thinite is a collar-vase typical of the VIth Dynasty; the Abydos vase is a large jar of the regular Ist Dynasty form; the Naram-sin vase is of the X-XIth Dynasty form. Yet this similarity (?) is "of great archaeological weight."

By a great authority² we are assured that "The 118 kings enumerated in this confused age [XIII-XIVth Dynasties] by the Turin papyrus may have ruled no more than 150 years; 100 years is ample for the Hyksos, of which 50 years may be contemporary with the native dynasts." "200 years is ample for the whole period including the Hyksos" [i.e. XIIIth to XVIIth Dynasties].

Now let us look at a definite part of this period, the first 33 kings of the XIIIth Dynasty. Of 13 of these the dates have chanced to survive in the Turin papyrus, and one or two elsewhere, amounting to 94 years. This not being a selection of important kings, but surviving by hazard in the record, we must allow that 7·3 years was the average reign over that period. The whole 33 kings would have then occupied 240 years. There is no trace of any of them being contemporary; on the contrary there was an important line contemporary with these in the south, which is entirely ignored in the Turin papyrus because they were contemporary. Of these 33 kings, 11 have left large monuments, and of 18 of them we can handle their various objects. The historic evidence then seems plain that 33 kings occupied about 240 years; and yet we are repeatedly assured that 200 years are "ample" for them and for 85 more kings (who certainly did not overlap them), and all

¹ *Journal*, vi, 295.

² BREASTED, *Ancient Records*, i, 35.

the Hyksos. How can this contradiction have arisen? The above writer states "Meyer's invaluable treatise furnishes a compendium of the whole obscure and difficult field." Another admirer follows, "It is unnecessary to point out that the adherents of an older date have been unable to answer Meyer's argument." What then is Meyer's argument? He sets out at length the various versions of the summaries of ancient authors. He never attempts to show how the kings and reigns are to be packed together into 200 years. His only argument is that an earlier date "Eine Absurdität ist, die für wissenschaftliche Discussion nicht in Betracht kommt." When personally appealed to for some reason, the only reply was "I cannot believe the period was so long." This contempt for facts is faithfully repeated by his follower, who says that the proposal of a longer period "is hardly worthy of a serious answer."

A French writer has lately dealt with this period at great length, and I have noticed his work elsewhere (*Ancient Egypt*, 1920, 22-27). As he has been admiringly referred to as clarifying the processes involved in the swelling of the length of the Hyksos period, I would here note that his main argument for the XIIIth Dynasty being contemporary with the Hyksos is that in both periods there is a type of scarab, which, however, extended from the XIIth to the XVIIIth Dynasty. In dealing with the Turin papyrus he entirely omits all the lengths of reigns there recorded for this period. His theory of numerical relations between the lengths of dynasties, if applied elsewhere, would prove more successfully that the XXIInd and XXVIIth Dynasties were fictitious. A theory which will not work in known periods cannot be applied to explain the unknown. We need hardly say that he cannot in the least explain the period of 240 years for half of the XIIIth Dynasty, nor even the 94 years enumerated for 13 kings. He omits all the years recorded. How about his admirers?

This sort of treatment of historic material is not limited to the earlier ages. Some years ago it was customary to only allow a brief reign to Amenophis II, as his only date was of his second year, and the usual abuse was laid on Manetho for stating 26 years. Then a jar turned up with the king's name and a date of 26 years upon it. That date was at once assigned to some other reign, i.e. the jar was supposed to have been kept for at least 26 years between writing the name and the date. It was then pointed out that the genealogy necessitated a longish reign; the reply was "It is indeed a powerful argument for a long reign, but there seem to be ways of escape." Why escape from the obvious meaning of facts? Is it only to spite Manetho?

A little attention given to the late Greek versions of the Ptolemaic history (summarized in *Ancient Egypt*, 1921, 44) would make writers acquainted with the fact that the condition of the text of Manetho's copyists is that of all copyists of the period, and no more reflects on the early history than it reflects on the Ptolemaic history. However much the details have been corrupted, the totals scarcely suffer materially.

I have not attempted here to state the support of the Egyptian history as recorded by the Egyptians; that is a far larger subject, on which I have put down some details in *Historical Studies*, II. That case is far too wide for a journal. But as it is desired to reach some agreed bases for the discussion of history, it is well to see how it is handled all round. I fear that a general agreement about principles is yet distant.

I have tried to state nothing that is not already well known; but if there is any question to be raised about the sources of statements here, I hope an enquiry will be made privately without encumbering this *Journal* with printing question and answer. Let us come to an agreed ground of fact before troubling readers with conclusions.

THE MEROITIC KINGDOM OF ETHIOPIA

ADDITIONAL NOTE

By G. A. REISNER

THIS outline of the chronology of Meroe¹ was prepared during the summer of 1922 on the basis of the material available at that time. Since then I have spent another winter at Begarawiyah, have obtained new material, and re-examined a good deal of the old. No radical changes have become necessary, but a number of details have been straightened out. The following more important corrections should be noted:

On p. 72,

l. 22. Read *Hpr-kʃ-rʃ*.

l. 24. Read *Hr nbty smn* etc.

On p. 75,

No. 35. The name is probably (*Nagyrinsan* (?) *-mery-Isis*). Nahirqa is the queen.

No. 37. Read the name (*Shanakzekhte*).

On p. 76,

No. 48. Read (*Akhyesbékhe*).

No. 52. Read *Artānyesbékhe*.

No. 53. Read *Teqérizemāni* = *Kheperkerē IV*. This is now clear from a new altar found on the floor of the chapel. There is probably some confusion in Lepsius' record of the provenance of the two altars which he reports to have found in this chapel and in the next to the north.

No. 54. Read the name (*Tameqérze-amāni*). King *Teqérzemāni* appears to be the son and *Tameqérze-amāni* the grandson of the Queen *Arqtanamkas* (*tezekheli-tezekheléwi* = "born of one born of," i.e. "grandson" or "grand-daughter").

No. 55. Read the name (*Taktizemāni*).

No. 62. Read the name *Manitarqize*, quite certainly.

On p. 77,

Paragraph (4) is to be struck out in consequence of the certain reading of the name *Manitarqize* of the altar.

There are also some minor changes in the order of the pyramids from No. 52 to No. 68 on p. 76. N LV is certainly an early Pre-meroitic tomb and is to be deleted. Pyr. XXIX, No. 55, follows immediately after Pyr. XXVIII, No. 53, and in consequence Pyr. XLI, No. 54, probably follows Pyr. XL, No. 51.

It may be added that the Western Cemetery at Begarawiyah was completely excavated in 1922—1923, the season just ended. No tomb of a king or of a reigning queen was found in the cemetery. The conclusion that it was the cemetery of the royal family after the founding of the Northern Cemetery is quite correct; but the western knoll of the cemetery,

¹ See above, pp. 34—77.

which appeared from the surface to contain only a few scattered tombs, was found on excavation to have about 500 graves hidden under the surface debris. These graves presented the same types of tombs as the graves in the Southern Cemetery and in particular those on the hill. In the graves were found:

- (1) A gold seal-ring with the name "Tirhaqa-beloved-of-Amūn."
- (2) A faience plaque with the names "Kashta" and "Amenirdis."
- (3) A scarab with the name "King of Upper and Lower Egypt, Nefer-rē" which I take to be for Nefer-ke-rē = Shabaka.
- (4) A scarab with the name "Ded-ke-rē" = Shabataka.
- (5) A large number of scarabs with the name "Men-kheper-rē" most of which are undoubtedly of the time of Shabataka.
- (6) A scarab with the name "great king's wife A'aqy," who is of course the same as the "great king's wife A'aqata" of Pyr. XXXVIII at Nuri of the time of Aspalta or Amtalqa.
- (7) About 300 scarabs of which a few were pattern scarabs of the Kerma types of the Middle Kingdom, one of Sebekhotpe, one of Amenhotpe-heq-Wēset, one of Nebma'et'rē, one of Menpehtyrē, and one of Menkauhor. It is certain that these earlier scarabs are not of local manufacture but were probably found at older sites in the Sudan. The Menkauhor scarab is, of course, not of Dyn. V.

From these new discoveries, the fact is clear that the Western Cemetery was begun about the same time as the Southern Cemetery. The duplication of the burial places at the beginning of the Ethiopian occupation of Meroe seems to me to point to the division in the royal family of which traces were already visible in the succession of the Egyptian XXVth Dyn.—Piankhy and Tirhaqa on one side, Shabaka, Shabataka, and Tanutaman on the other. When the area of the Southern Cemetery was filled the Western Cemetery became the sole family cemetery at Meroe.

One of the most interesting facts about the new cemetery is that it confirms fully the rule of primary sites laid down in the main article and elsewhere. As soon as we realized that the Western Cemetery was continuing as we worked up the gentle slope westwards, we immediately concluded that the earliest tombs would be on the top of the low knoll, and such proved to be the case. The cemetery beginning on the very summit of the knoll had grown eastwards down the gentle slope to a secondary knoll about two hundred metres to the east, and then southwards. The southern slope of the secondary knoll became the favourite area and was filled by the interspersing of later pyramids during the building of which many of the older pyramids were destroyed. The chronological series of foundation deposits was also confirmed by the deposits found in a few of the earlier pyramids and by the gold rings of the pyramids of the middle period. In general, the "finds" in the Western Cemetery confirm the conclusions of the article published above.

As to objects found, they consist largely of ornaments, amulets, and seal-rings of gold in the Meroitic part of the Western Cemetery, and of gold amulets, bead-necklaces, elaborate mummy-nets of coloured faience beads, faience amulets, scarabs, and stone vessels in the Ethiopian part. One tomb of the Southern Cemetery, S 85, which had been left because of the unstable roof, was excavated and found to contain the only practically unlooted tomb of the Southern Cemetery. The body was covered with a bead-net of silver and faience

beads over which lay a mask, a winged god behind the head, a conventional necklace, a winged scarab, a long inscribed strip and the four canopic figures all in thin silver sheet. The remarkable point was that *sdti*-burial was not practised in this Ethiopian tomb. Two more Meroitic tombs were opened in the Western Cemetery which were also very little disturbed and in these there were, as usual in that period, several additional bodies. One of these, Pyr. W V, contained a noteworthy "find" of gold jewelry—two pairs of gold and carnelian bracelets strung on what appeared to be woven gold wire but was really a system of gold links, six pairs of enamelled gold earrings, and five necklaces of gold, carnelian and glass beads.

EXPLANATION OF ABBREVIATIONS.

(1) Abbreviations for cemeteries :

- Beg.....Begarawiyah or Meroe.
 Beg N.....North cemetery at Begarawiyah.
 Beg S.....South cemetery at Begarawiyah.
 Beg W.....West cemetery at Begarawiyah.
 Bar.....Cemetery at Gebel Barkal or Napata.
 Bark....." " " " " "
 B I, etc.....Pyramid I, etc. in cemetery at Barkal or Napata.
 The Roman numerals designate the pyramids as on plan of cemetery.

(2) Sex and rank of owner of pyramids:

- k.....tomb of a king as shown by inscriptions or reliefs attached to tomb.
 q.....tomb of queen as shown in same manner.
 p.....tomb of prince as shown in same manner.

When the letter is in *italics* the identification is doubtful.

(3) Types of pyramid superstructures:

- OT.....O(ld) T(ype) of pyramid with stepped faces and plain corners.
 MC.....M(oulded) C(orner) pyramid with stepped faces.
 PC.....P(lain) C(orner) pyramid with stepped faces, later style.
 PCst.....a PC-pyramid built in stages (Bar VIII and Beg N I)—"step-pyramid."
 ASPC.....A(ll) S(mooth) P(lain) C(orner) type built of medium-sized blocks of stone.
 RBPB.....R(ubble) P(latform) B(rick) P(yramid), a red-brick pyramid of ASPC-type built on a rubble platform—usually of black ferricrete.
 briP.....bri(ck) P(yramid) of the ASPC-type, on a red-brick platform.
 rubP.....rub(ble) P(yramid) of the ASPC-type without platform or with a false platform built around the base.

(4) Types of burial chambers:

- O3.....O(ld) 3-room type as Nuri group *d*, kings' tombs.
 O2.....O(ld) 2-room type as Nuri group *d*, queens' tombs.
 O1.....O(ld) type, unfinished.
 P3(2+2+2).....P(illared) 3-room type with 2 pillars in each room (Bar VII).
 P3(4+4+4).....P(illared) 3-room type with 4 pillars in each room (Bar VIII).
 P3(2+2).....P(illared) 3-room type with 2 pillars in the outer room and 2 in the second room (Beg N VII).
 P3(4+2).....P(illared) 3-room type with 4 pillars in outer room and 2 in the second room.
 P2(2).....P(illared) 2-room type with 2 pillars in the outer room.
 N2(2).....N(iched) 2-room type with 2 pilasters (4 niches) in outer room.
 N2(6).....N(iched) 2-room type with 6 pilasters (8 niches) in outer room.
 N2(4).....N(iched) 2-room type with 4 pilasters (6 niches) in outer room.
 D2.....D(rop) type with two chambers and deep drop often broken by steps in doorways.
 D1.....D(rop) type with one chamber.

Proportional numbers express the relation between the length and the breadth of the room: that is, x (proportional number) is to 100 as length is to breadth; therefore, 100 means a square room; less than 100 means a room wider than it is long; more than 100 means a room longer than it is wide.

(5) Details of burial chambers:

- onold form of room with coffin bench in middle of inmost room and a niche high up in west wall of same room.
- tcoffin bench attached to west wall and decorated with reliefs.
- ustone coffin with lid decorated with reliefs.
- vbench in middle of inmost room and step *up* at doorway of same.
- wbench on north side of inmost room and threshold at doorway of same.
- xsteps in outer doorway, the number being indicated, x3, x4, x8.
- ybench on north attached to west wall.
- zbench in middle attached to west wall and steps *down* at doorways.

(6) Types of Chapel decorations:

- o1old type of offering scenes, with false door on west wall.
- o2modified offering scenes as introduced by N VIII with variations from tomb to tomb, especially of the false door scene on west wall.
- lala(te) type of offering scenes as introduced by N XXII; as o2, but side scenes simplified, and on west wall, from left to right,—Isis, Osiris seated, king offering to Osiris.
- q1scenes contracted by omission of seated figure on side walls; on west wall,—Isis, king (as Osiris), Nephthys, and Anubis (N XV and XVI).
- q2west wall as q1; south wall, normal offering scene (la); north wall, king standing offers to Osiris standing, behind king offerings (N XVII).
- spunusual offering scenes, partly from Book of the Dead; Egyptian inscriptions (N VII, N V, N I).
- blblank walls, uninscribed.

(7) Types of stairway and details:

- Fstairway in the old traditional position east of chapel.
- §stairway under the pyramid.
- ununfinished.
- s+4stairway beginning with a slope and continued by 4 steps, usually sloping and irregular in form and size.
- s+s3sstairway with slope and 3 sloping steps separated by slopes.
- s+s+sstairway like s+s3s but with number of steps obscured by superstructure.
- 5ssstairway with 5 irregular sloping steps.
- 5s+sstairway with 5 irregular sloping steps separated by slopes.

A SIXTH DYNASTY CEMETERY AT ABYDOS¹

By W. LEONARD S. LOAT

Plate XXIX

DURING the course of the excavations at Abydos in the season 1908—1909, a cemetery F dating from the Sixth Dynasty was found, situated on a gently sloping piece of ground about one hundred and fifty yards from the edge of the cultivation. The ground consisted of hardened sand, with a certain admixture of gravel in places. The tombs usually had square shafts, varying in depth² from four to eleven feet. In some cases the top was surrounded with brickwork. This also varied in amount; in one case only a single course remained, in another as much as three feet; these can only be looked upon as approximately correct owing to attrition etc., but I think it may be taken as fairly certain that the original top was raised above the level of the surrounding ground.

It might be mentioned that many of the tombs were rather crowded together, with the result that in several cases the chamber of one burial had been cut into that of an adjacent

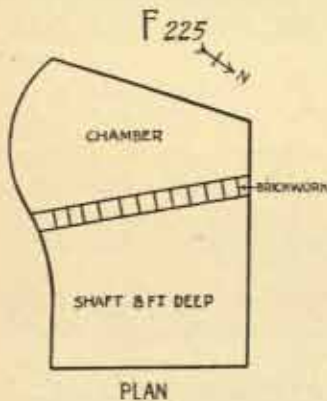


Fig. 1. Scale $\frac{1}{4}$ inch.

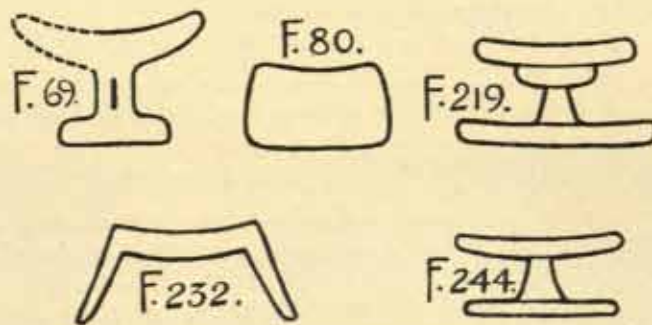


Fig. 2. Types of wooden head-rests.

tomb, this, combined with the nature of the ground, i.e. hardened sand, later burials and the work of plunderers, rather complicated matters. To each shaft there was but a single chamber, which was roughly cut out under one side. This lay almost invariably on the south-west and its entrance was in some few cases closed by brickwork, as in F 225 (Fig. 1). Plain wooden coffins were used; these were much decayed and generally crumbled at the touch. A few showed traces of white stucco on the outside: one or two, however,

¹ The documents on which this article is based have only lately been recovered from among the papers of the late Mr E. H. Ayrton, who was working on the records of the cemetery at the time of his death. Unfortunately the tomb-cards of some of the more important tombs are now missing from the catalogue, as are also the photographs illustrating them, and it would seem as if Mr Ayrton had detached these, possibly with a view to publication. Despite this it appears worth while to preserve some record, however scanty, of a piece of excavation carried out with that care and efficiency which marked all Mr Ayrton's work.

² All depths were measured from the hard ground, and do not include the layer of sand covering the cemetery, which varied considerably in depth.

were also stuccoed on the inside. Only a single burial was found in each chamber. No cases of mummification were recorded, with the possible exception of F 246. Speaking generally, the objects with any individual burial were but few in number, and of little intrinsic value, often but a wooden pillow (Fig. 2) or a few pieces of pottery. On the other hand many small alabaster vases were found, these being often of slender and graceful shapes (Pl. XXIX, Figs. 2 and 4). Pottery was by no means common, and generally of a poor quality. In the sand which filled the shafts of the unplundered tombs, and also lying about in the vicinity of those that had been rifled, one often came across coarse roughly made cylindrical vases with rounded bases¹, the average size being 9" long by 4" in diameter; in one or two cases the mouth was sealed with a mud cap. One rather noticeable peculiarity of some of the burials was the small size of the coffins. In some cases they were so small that there must have been considerable difficulty in forcing the body into them. The body was almost invariably placed on its side, the head to the north-west, the face turned in an easterly direction. The knees were always bent, to a greater or lesser degree (Pl. XXIX, Figs. 1 and 3): this, however, was not always due to the smallness of the coffin, but evidently brought about when it was lowered down the shaft—some shafts being only three feet square. This would naturally cause the body to slip downwards towards one end, there being nothing in the way of mummification or bandaging to keep it rigid. Thus a considerable space was often left between the skull and the end of the coffin. The arms were placed in no particular position, though in some few cases the hands were placed in front of the face, as is so often found in pre-dynastic burials. Below is given a description of a few burials with their contents etc.:—

F 60. Unplundered. Skeleton in a decayed wooden coffin (5' 8" long × 18" wide, inside measure), lying on its side in a huddled-up position, knees sharply bent. In the top left-hand corner was a white pottery vase, under the left cheek a small alabaster vase; lying between the pelvis and the heels were the following objects: an alabaster vase full of small beetles with, as a lid, the valve of a clam shell containing a black substance (kohl?), a mirror, and two other alabaster vases. Immediately in front of the face was a small alabaster vase, and round the neck a string of beads. Outside the coffin, at the head end, were two rough vases and a bowl of red polished ware.

F 69. Unplundered. Skeleton in a brittle wooden coffin (6' × 18" × 15" deep, wood 1½" thick), lying on its side, knees bent. Lying on the lid, over the feet, was some two inches of sand, on which were one stone and three alabaster vases; one of the latter contained beetles, as was the case in F 60 (*N.B.* these were not the sacred beetles, *Scarabaeus sacer*). Apparently the vases had been placed in position after a fall of a considerable amount of sand from the roof. Against the face was a copper mirror with a wooden handle, under the head a wooden pillow (Fig. 2). Outside the coffin, near the feet, were two white pottery vases. Several beads of green glaze, carnelian and copper were found near the neck.

F 78. Unplundered. Fig. 3. Skeleton in a decayed wooden coffin (5' 6" × 1' 9" × 1' 6" deep, wood 2" thick), lying on its side, knees bent. Above the head was a small wooden box, much decayed, containing two small alabaster vases and a wooden comb. A mirror, without handle, was lying on the face. A rough pillow, made out of a small block of stone, was placed under the head. Behind the neck was a polished red vase, and lying just outside the coffin was another of rough red ware. Against the breast-bone was a large green glazed pottery bead.

¹ *CE Cemeteries of Abydos*, I, Pl. VI a.



1. Grave F.22.



2. Grave F.40. Wooden head-rest and alabaster vase.

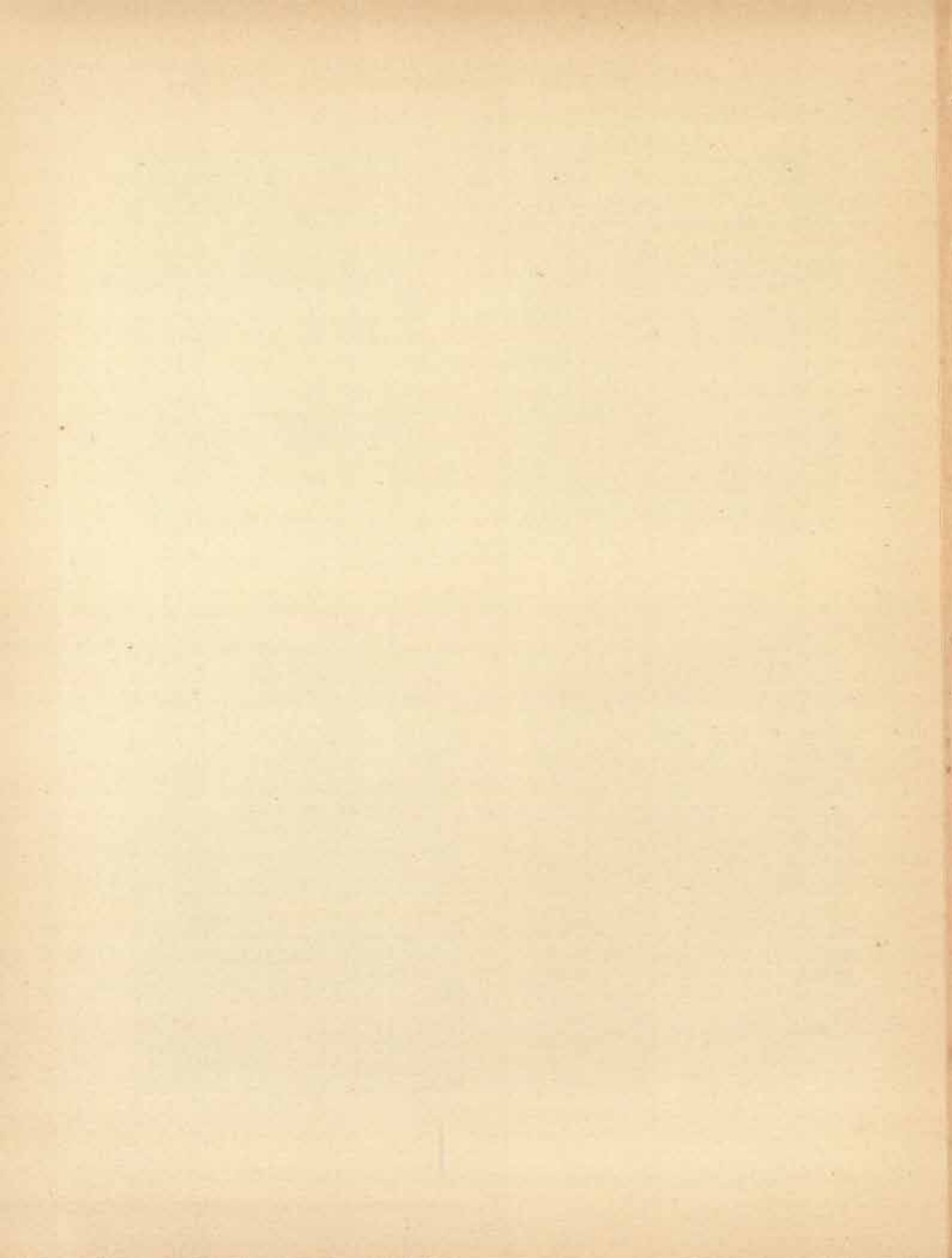


3. Grave F.29.



4. Grave F.120. Wooden head-rest and alabaster vase.

ABYDOS. SIXTH DYNASTY CEMETERY.



F 221. Unplundered. Body in wooden coffin ($5' 4'' \times 1' 5'' \times 13''$ deep, wood $2''$ thick). Remains of a wooden pillow under the head. Outside the coffin a large white pottery vase. *N.B.* there were several simple burials of this description.

F 228. Unplundered. Fig. 4. Wooden coffin in fairly good condition, body lying on its side, knees slightly bent. Under the head were the remains of a wooden pillow, and in the top right-hand corner two copper mirrors. On the lid were four ox bones and three alabaster vases. Lying outside the coffin near the knees were two alabaster vases and a third made of stone, as well as a small copper dish.

F 232. Unplundered. In this case the body of an adult had been forced into quite a small coffin $4' 4''$ long \times $12''$ wide, wood $2''$ thick, depth uncertain as the wood was so decayed. The skeleton was lying on its back, with the legs bent back so that the heels

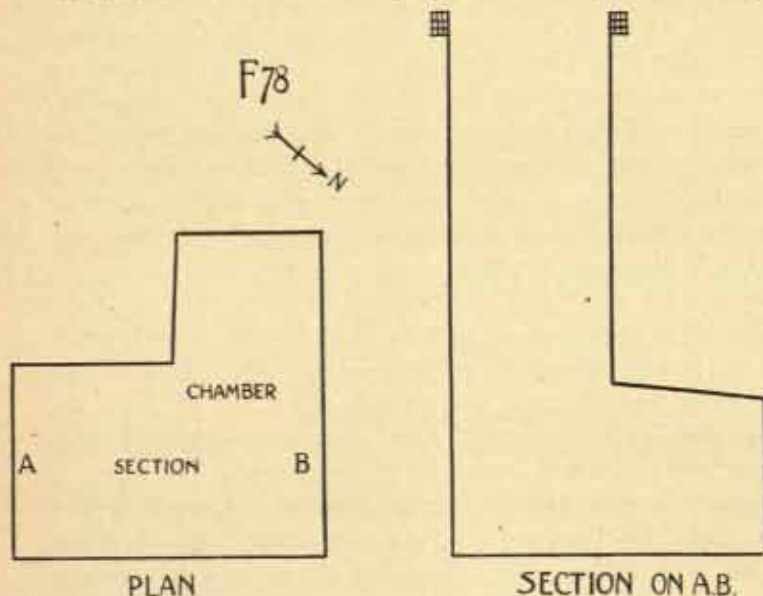


Fig. 3. Scale $\frac{1}{32}$.

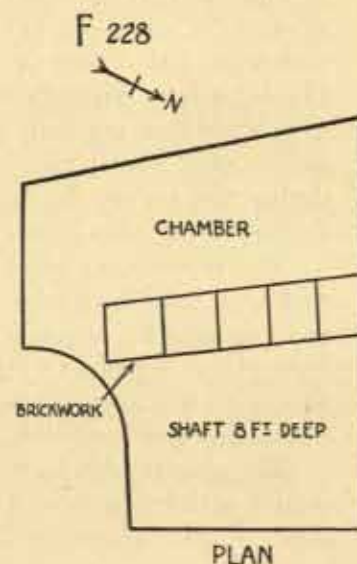


Fig. 4. Scale $\frac{1}{16}$.

touched the pelvis. Arms sharply bent at elbow with the hands resting on the left breast. A wooden pillow was near the head. On the coffin lid were the fragments of a stick.

F 243. Skeleton of an aged person, huddled up on its side in a wooden coffin ($5' 2'' \times 15'' \times 15''$ deep, wood $1\frac{1}{2}''$ thick). Touching the forehead was a red pottery vase and the single valve of a large clam, no doubt originally used for holding eye-paint (kohl?). Close to the chest was one large cylindrical steatite bead.

F 246. Unplundered. This burial varied in several particulars from those previously described. The coffin was large, *i.e.* $7' 1''$ long \times $2'$ wide \times $2'$ deep (inside measurements) and wood $2''$ thick. The body was lying on its back, the head however being placed in the usual position, *i.e.* the face looking towards the east. Legs and arms perfectly straight, the latter close to the side, but the feet and hands were missing. The head was resting on the base of a wooden pillow. A much decayed wooden staff had been placed inside the coffin in front of the face. In the top right-hand corner was a collection of small copper objects consisting of: one dish, one bowl, a lid, one strainer? and two palette knives. At the other end was a further collection of copper articles, consisting of chisels, etc. Into the wall closing the chamber an offering vase had been placed.

THE ANAGRAPHAI OF THE GRAPHEION OF TEBTUNIS AND KERKESOUCHON OROS

PAP. MICHIGAN 622

By A. E. R. BOAK

FROM the archives of this Grapheion there have come into the University of Michigan collection over one hundred documents, practically all of which fall within the principates of Tiberius, Caligula and Claudius. These documents are of the following types: (1) the originals of contracts, (2) more than fifty blank contract forms with the declarations (*subscriptiones*) of one or more of the contracting parties, (3) registers or *ἀναγραφαί*, (4) abstracts of contracts, (5) accounts of the Grapheion, and (6) miscellaneous documents. It is hoped that the study of this group of documents will lead to a definite knowledge of the detailed work both of the Grapheion in question and others of a similar character during this period. In this paper I shall present some of the results of work upon one document only, that catalogued as P. Michigan No. 622.

This papyrus is a great roll, 2 m. 39 cm. (7 ft. 7 in.) long and 29.30 cm. (11½ in.) wide, with writing on both sides. The roll is imperfect, being torn off at the left in such a way as to damage the contents of the recto, although fortunately leaving the writing on the verso almost completely intact, since this begins at the opposite end of the roll from the writing on the recto and barely extends into the break. Apart from this the papyrus is in remarkably good condition, being very tough and having no breaks or holes.

The recto is filled by four unusually wide parallel columns, written in a small, upright cursive, with letters about 3 mm. high. The lines run at right angles to the short side of the sheet. In some places the ink has been rather badly rubbed, but the writing still remains legible except in a few small patches. Three of the four columns are intact, but the first one has lost the commencement of all the lines owing to the break mentioned above. As the remaining three columns average a little over 70 cm. in width, and since only some 31 cm. remain of the longest lines in the first, we may assume that the roll in its original state was at least 70 - 31, or 39 cm., longer than at present.

Turning to the verso, we find here 12 parallel columns of from 20 to 22 lines each, with the lines, as on the recto, running at right angles to the shorter edge of the papyrus. The hand is a large sloping cursive with letters from 0.5 to 1 cm. in height. The writing on this side has suffered very little damage, and the columns are complete except for a few letters at the extreme right of col. XII.

The date and the contents of the verso are clearly indicated in the first two lines of col. I, which read:

1 ("Ετους) β Τιβερίου Κλαυδίου Καίσαρος Σεβαστοῦ Γερμανικοῦ

2 αὐτοκράτορος. ἀναγραφὴ γραφίου(ν) Τεβ(ύ)νης καὶ Κερκε(σού)χων Ὀρο(νς)

Thus we have here a register of the record office of Tebtunis and Kerkessouchon Oros dated in the second year of the Emperor Claudius, which fell between 29 August 41 and 28 August 42 A.D. There follows a list of 247 contracts entered according to a fixed

formula with a notation in the left-hand margin of the month and day upon which they were drawn up. This register, then, is a register of contracts, an *ἀναγραφὴ συμβολαίων*. The marginal dates begin with *Γερμανικείου ἡ*, i.e. Pachon 3rd, which corresponds to our April 28th, and close with *ἐπαγομένων ε*, i.e. the fifth and last of the supplementary days which followed Kaisareios or Mesore, the twelfth month of the Egyptian year, and corresponds to August 28th. From these dates we see that the register before us did not cover the work of the whole year 41-42 A.D., but only that of its last four months.

Turning back again to consider the recto, we find that the four columns there contain abstracts of 50 of the 247 contracts registered on the verso, namely those falling between col. I, l. 11 and col. III, l. 18 of the latter. Although col. I of the recto is incomplete, enough remains of it to make it certain that it began with an abstract of the contract registered in col. I, l. 11 of the verso, which is the ninth contract on the list. The missing abstracts of the first eight contracts must, therefore, have formed part of another column, either on this or on another roll. The remaining 190 which should follow col. IV of the recto must have been entered on other rolls.

We see now that our papyrus illustrates two types of records preserved in the Grapheion: one a title list of the contracts registered, and the other a list of abstracts of the same. Although such lists may well have been prepared for forwarding to a central bureau of records in the metropolis of the nome, it seems clear from the discovery of this papyrus along with other records of the Grapheion which were not destined to be thus transmitted, that copies at any rate of the registers remained in the Grapheion itself.

Let us now consider the *ἀναγραφὴ συμβολαίων* in somewhat greater detail. The contracts, as we have seen, were listed according to their dates of registration. Not all of the days of the months mentioned are represented by entries, and while for some dates only single contracts are recorded, for others there are as many as fourteen or fifteen. Evidently there were both dull and busy days at the Tebtunis record office.

The entry for each contract occupies but a single line and contains the following *data*.

(1) The type of contract, regularly expressed by a noun in the nominative case. The following six types are represented:

- (i) *ὁμολογίαι*, "acknowledgments," with 136 examples.
- (ii) *μισθώσεις*, "leases," with 50 examples.
- (iii) *δάνεια*, "loans," with 27 examples.
- (iv) *συγγραφαὶ τροφίταις*, "alimentary contracts," with 17 examples.
- (v) *πράσεις*, "sales," with 14 examples.
- (vi) *συγγραφαὶ διδασκαλικαί*, "contracts of apprenticeship," with 3 examples.

(2) The name of the party of the first part in the genitive, his associate or associates being referred to as *καὶ ἄλλον* or *ἄλλων*. (3) The name of the party of the second part in the accusative after *πρὸς*¹, with his associate or associates, if any, referred to in the phrase *καὶ ἄλλον* or *ἄλλους*. (4) The subject of the contract, expressed by a noun in the genitive. (5) The value of this subject, expressed in terms of money or of grain. Some of the entries lack one or both of the last two terms.

From this analysis of the entries we can recover the formula according to which they were inserted. It was the following: *ὁμολογία* (or whatever the type might be) *δεῖνος* (*καὶ ἄλλον* or *ἄλλων*) *πρὸς δεῖνα* (*καὶ ἄλλον* or *ἄλλους*) *διαρίσεως* (or whatever the subject might be).

¹ *eis* for *πρὸς* occurs in col. I, l. 9, and col. XI, l. 19, each time in the entry of an *ὁμολογία μεριτίας*.

The only entries which are not made in strict accordance with this general formula are the three *συγγραφαὶ διδασκαλικαί*. These all follow a different form which is illustrated by that in col. II, l. 12, reading thus: ἐξέδε(το) Τασωούκιος πρὸς Ὁρο(ν) διδασκαλική¹. This entry presents some grammatical difficulties. ἐξέδετο is a well-established form for ἐξέδοτο, and the regular meaning of ἐκδίδοσθαι in such contracts is "to give in apprenticeship," but a subject for ἐξέδετο is lacking. I do not think that we are entitled to assume that the clerk made an error and wrote Τασωούκιος (gen.) for Τασωούκισ (nom.) with some object of ἐξέδετο such as νίον understood, and διδασκαλική(ι) (sc. συγγραφῇ) (dat.); or that, having written ἐξέδετο, he then ignored it and went on with Τασωούκιος πρὸς Ὁρον διδασκαλική (nom.), with Τασωούκιος as genitive dependent upon διδασκαλική. The fact that all three entries are made in identically the same way argues against the possibility of a clerical error, and that we have here to deal with an officially accepted formula seems to be proved by its recurrence in the abstract of the first of these contracts which is given by another clerk in col. II, viii, l. 1 of the recto. This abstract opens in the following way: ἐξέδετο Τασωούκιος Θεῶτος ἔ ὡς (ἐτῶν) μβ, ο(ὕλῃ) χι(ρι) ἀρ(ιστερᾶ) μετὰ κυρίου το(ῦ) νιού Ὁρσεῦτο(ς) το(ῦ) Ὀννό(φριος) ὡς (ἐτῶν) κζ, ο(ὕλῃ) βραχ(ίονι) ἀριστερ(ῶ), Ὁρωι Παποντῶτο(ς) ὡς (ἐτῶν) μ, ο(ὕλῃ) ὀφρ(ύει) ἀριστερ(ᾶ). Here again we have ἐξέδετο followed by the name of the party of the first part in the genitive and without subject or object.

The solution of the difficulty which I venture to suggest is the following. The problem which faced the record office was to find a form which could be used in registering this type of contract in the place of ὁμολογία, etc., in the entries of the other types. Apparently the term *συγγραφὴ διδασκαλική* which one would expect on the analogy of *συγγραφὴ τροφίτης* was not acceptable for reasons that are not clear. Instead of this they adopted the stereotyped verb form ἐξέδετο, and used it as a noun. Its meaning would then be "an indenturing" or "deed of indenture." Τασωούκιος would then be a genitive after ἐξέδετο, and διδασκαλική would be completed as διδασκαλικῆς upon the analogy of the other entries.

The comparison of this *ἀναγραφὴ* with the papyri which have been considered registers of contracts² leads to an interesting result. For although these latter are all very fragmentary, it is evident that none of them is of the type of the *ἀναγραφὴ συμβολαίων* which we have been considering. On the other hand they are beyond question lists of abstracts of contracts such as are contained on the recto of the Michigan roll. Of course it is possible that such lists of abstracts may have been called *ἀναγραφαὶ συμβολαίων* also. In any case we must now distinguish between the two types of registers kept by the Grapheia: (1) a register of titles, and (2) a register of abstracts.

¹ The other two examples are col. XI, l. 13: ἐξέδετο Ἡρατο(ς) πρὸς Παποντῶτ(α) διδασκαλική, and col. XII, l. 6: ἐξέδετο Ὁφῶν πρὸς Περεσῖν [δι]δασκ. With διδασκαλική one must understand *συγγραφὴ*.

² Such are: P. Fior. 51; P. E. R. 2030-34, 2045 in WESSELY, *Mitt. E. R.*, 5, 107 ff.; P. Reinach 42; P. Amh. II, 98; P. Leipzig 31.

TEXT.

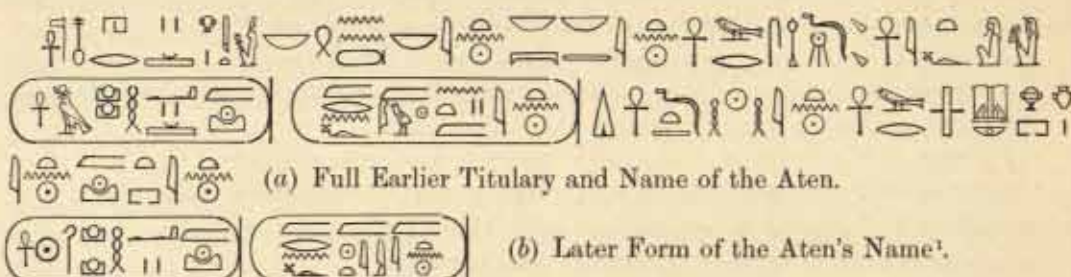
COL. I—VERSO.

- 1 (ἔτους) β Τιβερίου Κλαυδίου Καίσαρος Σεβαστοῦ Γερμανικοῦ
 αὐτοκράτορος. ἀναγραφὴ γραφί(ν) Τεβτ(ύνεως) καὶ Κερκε(σούχων) Ὀρο(νς).
 μη(νός) Γερμανικείου ᾗ. πρᾶσις Ἡρόδο(ν) πρὸς Ἀρπαήσιν τόπο(ν) ψιλ(οῦ).
 ὁμολ(ογία) Κρονίω(νος) καὶ ἄλλω(ν) πρὸς Θεᾶνιν πρᾶσ<<ι>>ς ἀμπέλ(ου).
 5 ὁμολ(ογία) Πατύνιος πρὸς Θενψύφιν φερνῆ(ς) ἀργυ(ρίου) λβ.
 δ̄ συνγρ(αφή) τροφίτις Ἡρακλείο(ν) πρὸς Θενθῶνιν χρυσ(οῦ) κα.
 ὁμολ(ογία) Ὀρσεύτο(ς) κ(αὶ) ἄλλων πρὸς Ψοσνεοῦν διαιρέσεως.
 ε̄ ὁμολογία Παπνεβτύνιο(ς) κ(αὶ) ἄλλ(ων) πρὸς Τκαῦμιν ἐνοική(σεως) (δραχμῶν) μ.
 ὁμολ(ογία) Λαβοήσιο(ς) εἰς Ταπεκ(ούσιον) μεριτήας.
 10 μίσθω(σις) Μαρσισοῦχο(ν) κ(αὶ) ἄλλ(ων) πρὸς Λυσίμαχο(ν) νωμῶν.
 μίσθ(ωσις) Ψύφιος καὶ ἄλλω(ν) πρὸς Ὀρσενο(ῦφιν) ἐνοική(σεως) (δραχμῶν) κ.
 ὁμολογί(α) Λυσιμάχο(ν) κ(αὶ) ἄλλων πρὸς Ἡράκ(λειον) πρᾶσ(εως) ὄνου.
 ὁμολ(ογία) Πατύνιος πρὸς Σαμβ(ᾶν) πράσεως ὄνου.
 μίσθωσις Ψενκήβκιος πρὸς Μαρσισοῦχο(ν) (ἀρουρών) δ.
 15 ὁμολ(ογία) Διονυσίου πρὸς Πατύνιν πράσεως ὄνου.
 δάνειο(ν) Διδύμο(ν) πρὸς Ἀρτεμίδ(ωρον) κ(αὶ) ἄλλο(ν) (δραχμῶν) ξη.
 ὁμολ(ογία) Ἡροίδ(ου) πρὸς Πατύνιν τροφίμ(ου) δουλικό(ν).
 θ̄ δάνειο(ν) Πατύνιο(ς) πρὸς Ἡρωεί(δην) ἀργυ(ρίου) (δραχμῶν) ρλσ.
 ιᾷ μίσθωσις Χαιρή(μωνος) πρὸς Μαρεῦν καὶ ἄλλο(ν) (ἀρουρών) σ.

* πράσεως.

NOTES ON THE ATEN AND HIS NAMES

By BATTISCOMBE GUNN



(a) Full Earlier Titulary and Name of the Aten.

(b) Later Form of the Aten's Name¹.

NOT long ago Professor SETHE published an article² on the Aten and his names which is indispensable for the study of the religion of Akhenaten. The following notes, which cover much the same ground as that article, and are in part intended as a criticism of it, were set down by me while editing for publication the inscriptional matter from our Society's excavations at Tell el-'Amarnah, 1922.

I. THE ATEN AS THE OVER-KING.

It would appear that not enough stress has been generally laid hitherto upon the theocratic nature of Atenism, which, although not explicitly formulated in the texts, is strongly emphasized by the names, titles, representations and cult of the Aten. In these no effort has been spared to proclaim him not only the supreme God, but also the supreme King.

In the first place, of course, his name is written in two cartouches, corresponding to the two cartouches of the kings³. Further, these cartouches are regularly followed by the words *rdy ḥnh dt nḥh*, "given life for ever and ever," which regularly follow royal cartouches in other reigns⁴, and were perhaps at no other time applied to a god. The usual formula is

¹ For translations see the end of the article. In the most carefully cut originals, ☉, ☿ and ☿ have in the disk a uraeus with a little ☿ hanging from it, and the rays of ☿ end in hands.

² *Nachrichten der K. Gesellschaft der Wissenschaften zu Göttingen*. Philologisch-historische Klasse. 1921. Pp. 101—121. Cited hereafter in this article as "SETHE" merely, with page number.

³ It may be significant that in the stone figured in *The City of Akhenaten*, Pl. XXXIV, 1, 2, the Aten's cartouches differ from those of the King in being formed with a double line instead of a single one. If, as seems probable, the cartouche (*inw*) represents magical-surrounding-protection (*in*) by a knotted cord, we may take it that the Aten's names are in such a case considered to be doubly so protected, and that he is thus in this respect even more a king than the King himself.

⁴ In the later period this phrase does not normally follow the cartouches of Akhenaten, who often contents himself with the more modest *ḥ m ḥw.f*, "long in his life-time," i.e., "the long-lived,"—an epithet already adopted early in the reign; or *rdy ḥnh ḥ m ḥw.f*.

rdy *ḥnh* *mī* *Rē* *dt* *nḥh*, "given life like *Rē* for ever and ever"; applied to the sun-god, the *mī* *Rē* is naturally omitted, and even so the epithet ill suits the supreme divinity, who, unlike the King, cannot be "given life" from a higher source. As regards the name itself, SETHE has pointed out (p. 117) that the later form, beginning *ḥnh* *Rē*, "*Rē* lives," follows, superficially at least, the tradition of all kings from the Fifth Dynasty onwards, whose "throne-names" are sentences of which "*Rē*" is the subject (or perhaps the predicate); it might also be pointed out that, further, the next following constituent of the later form of the name, *ḥkꜣ* *ḥt*, "Ruler of the Horizon (or, of the two Horizons?)" bears the strongest family likeness to *ḥkꜣ* *Wꜣst*, "Ruler of Thebes," *ḥkꜣ* *Ḥwnw*, "Ruler of Heliopolis," *ḥkꜣ* *mꜣ*, "Legitimate Ruler"; *ḥkꜣ* *ntry*, "Godlike Ruler," figuring in the second cartouches of the kings of the Eighteenth Dynasty including "Amenophis IV" himself. In the name of the Aten the dominion is extended from a mere town to the whole world between sunrise and sunset. (Cf. the title *nḥ* *šnt* *nḥt* *Ḥtn*, touched on below.)

Apart from the cartouches, several of the epithets in the titulary (for so, from its regular occurrence and stable form, it may be called) of the Aten are peculiar to kings rather than to gods. Such are *nḥr* *nḥr*, "the Good God," *ḥrl* *ḥr* *mꜣt*, "taking pleasure in truth," *nḥ* *ḥbw* *šd*, "Lord of Jubilees," and *nḥ* *šnt* *nḥt* *Ḥtn*, "Lord of all that Aten surrounds." This last stock epithet of kings has been quite mechanically transferred to King Aten, without regard to the fact that the word *Ḥtn* then figures very awkwardly in it: "Aten...Lord of all that Aten surrounds"!

Further evidence as to the royal nature of the Aten is afforded by the datings of records. In the tombs and boundary stelae his titles and names come immediately after the actual date; they are often followed by those of Akhenaten, who thus figures in a subordinate position. In these datings the preposition *ḥr*, "under," i.e., "in the reign of," which in all other times connects the statement of regnal-year, month and day with the king's titles, does not here occur, and as far as wording goes the Aten and the King are placed in an identical position with regard to the date, as though associated in a co-regency¹. But the matter goes further than this, for records were also dated by the Aten alone. Thus in the tomb of Huya, DAVIES, *Rock Tombs of El Amarna*², III, Pl. 13, we have: "Regnal-year 12, II *Pryt*, day 8, may live the Father...Aten, given life for ever and ever. The King...and Queen...appeared upon the great litter," etc. And the datings on some of the boundary stelae are to be similarly understood. Thus on Stela S (DAVIES, v, Pl. 26) we have, in four vertical lines in the centre of the upper part, quite apart from the rest of the text: "Regnal-year 6, IV *Pryt*, day 13, may live the Good God...Aten...who is within Per-Aten in Akhetaten"; the King's and Queen's names and titles begin the horizontal lines. On other stelae, e.g., A, K, Q, R, U, there is not this separation; but Q and R mark off the date with the name and titles of the Aten from what follows to this extent, that they make these fill exactly one line³.

¹ See p. 173 below.

² Cf. SETHE, *Urkunden*, IV, 601/10, 11.

³ See sect. II below.

⁴ It is tempting to regard the optative *ḥnh* which generally introduces the mention of both Aten and King in the datings as being substituted for *ḥr* (as suggested by SETHE, 112, note 1), perhaps under the influence of phonetic similarity (cf. *ḥr* > *ḥ* in *ḥr* > *ḥ* in *ḥr* > *ḥ* from *ḥr* > *ḥ*: optative *ḥnh* > *ḥ*: *ḥr* written for optative *ḥnh* in demotic, see SPIEGELBERG, *Sagenkreis des Königs Petubastis*, Glossar, No. 58); on the other hand the dating in DAVIES, II, Pl. 29 has neither *ḥr* nor *ḥnh*.

⁵ Cited hereafter in this article as "DAVIES" only.

⁶ Stela X perhaps makes them fill exactly two vertical lines.





Records could be dated by the Aten or the King indifferently; this is shown by the fact that the same event that is dated in the tomb of Huya to the twelfth year of the Aten alone (see last paragraph) is dated in that of Meryrē II (DAVIES, II, Pl. 29) as follows: "Regnal-year 12, II *Pryt*, day 8¹: the King of Upper and Lower Egypt...Akhenaten." It is thus certain that the Royal Aten and the King were regarded as having commenced their reigns on the same day.

Further features of the Aten's royal nature, presented by the inscriptions, are his celebration of Jubilees, and his title "Father" with the double determinatives of god and king; both of which points are discussed below.

Turning from the inscriptional to the plastic material, we find that the radiating solar disk, by which alone the Aten is represented, always wears the royal single uraeus—a noteworthy innovation of the time². Further than this Akhenaten could hardly go; the severely non-anthropomorphic representation of the god made it impossible to give him the royal crowns, or to seat him upon a throne.

Finally, the excavations of 1921—2 brought to light an important element of the Aten-cult pointing in the same direction. The remarkable complex of buildings just north of El-Hawatah was known collectively as "The Maru of the Aten." I have pointed out in *The City of Akhenaten*, 156 foll., that the "Maru" is a building otherwise known only in connection with kings and solar gods of specifically royal nature; that it is the building from which the king or king-god showed himself at his "Window of Appearing" to his adorers; and that it is probably purely royal in origin, having been subsequently transferred to royal solar gods, to whom it was, however, somewhat inappropriate.

II. THE JUBILEES OF THE ATEN.

In the inscriptions containing the full names and titles of the Aten, the earlier form of the "didactic" name is regularly accompanied by the epithet , variant  III; and the later form of the name is regularly accompanied by , variant  III.

The only exceptions are a few cases in which *iml hb-šd* is abnormally associated with the later form of the name: these occur (a) in the tomb of Meketaten and (b) twice in the tomb of Maḥu (DAVIES, IV, Pls. 15, 16); elsewhere in the latter tomb the later name is accompanied by *nb hb-šd* in the usual fashion. It may be pointed out in passing that the association of *iml hb(w)-šd* and *nb hb(w)-šd* with the earlier and later forms of the name respectively often affords a criterion by which inscriptional matter may be dated to the period either before or after the change of name, in cases where the Aten's cartouches are missing or damaged.

These two titles have hitherto been taken as referring to Akhenaten's jubilees; but the meaning of them directly conflicts with that view. *Iml hb(w)-šd* means "he who is in jubilee(s)." The term translated "jubilee" is of course literally "the feast of the *šd*" (whatever the *šd* may be), and to say that a god is *m hb*, "in the feast," means that his feast is being celebrated—compare the names *Imn-m-hb*, *Hr-m-hb*, *P3-Itu-m-hb*, etc. Thus the title in question can hardly be anything but a reference to the celebration of the royal Aten's jubilee. The later title, *nb hb(w)-šd*, points in the same direction; for not only does

¹ The dating is indistinct, but is certainly identical with that of Huya.

² The uraeus cult at Akhetaten, and the profusion of uraei as decorative elements there, may be, at least in part, a celebration of the Aten's royalty—as also the apparent toleration of the cult of Wazyt in the Delta (*The City of Akhenaten*, 163).

nb mean "possessor of" and never, to my knowledge, "bestower of," but earthly kings who are known to have celebrated jubilees are also styled *nb hbw-sd*, "Lord of Jubilees"; thus Tuthmosis III, on the obelisk erected by him at his second jubilee¹, Amenophis III², Akhenaten himself³, and Ramesses II⁴. The view maintained here is still further strengthened by the fact that on a rock-relief at Aswân, certainly later than the sixth year, the Aten is twice given the variant epithet *lr hbw-sd*, "Celebrator of Jubilees"; for *lr hbw-sd* is the stock expression for a king's celebration of his own jubilee⁵.

What is the significance of the change in the *hb-sd* titles, synchronous with the change in the "didactic" name? The Aten seems not to have borne the title *imi hb-sd* before the King's first jubilee⁶, which occurred before the latter part of the sixth year⁷. The change

¹ SETHE, *Urkunden*, IV, 587/9.

² SHARPE, *Egyptian Inscriptions*, I, 24; BRUGSCH, *Thesaurus*, 1456.


³ On a scarab belonging to Mr Mond, which Prof. Sethe tells me he has seen.

⁴ *Zeitschr. f. äg. Spr.*, 29, 128 (Berlin 5081). This reference and the second one in note 2 above I owe to Prof. Sethe.

⁵ MORGAN, *Catalogue*, I, 40, no. 174.

⁶ E.g., DAVIES, VI, Pl. 21, line 5; SETHE, *Urkunden*, IV, 254/1, 263/6, 261/10.

⁷ On the Oxford Jubilee slab (bibliography, *J.E.A.*, VIII, 199), which was executed before the change in the King's name, the Aten is given the *imi hb-sd* title in an inscription at the side, which, judging by its very slight and rough cutting, may be a subsequent addition. However, the important Louvre stone (now republished by ASSELBERGS in *Zeitschr. f. äg. Spr.*, 58, Pl. I), which seems also to be connected with the first Jubilee, shows at the broken top edge, behind the Aten's cartouches, clear remains on both sides of


 i.e., [*Imi hb-sd*...]. Among curious features of this stone is the fact that on the left the King's names (later form) are surcharged (see ASSELBERGS, *ibid.*, 37: this is also quite clear from the photo. to anyone who has experience of such overworkings), while on the right they are clearly original, although also of the later form. The two royal figures are nearly identical duplicates, so that there is no question of Amenophis III having originally stood on the left, an idea which is also precluded by the fact that both figures are alike being handed down "millions of Jubilees" by the Aten. I can only suppose that the sculptor had already begun cutting the stone on the left-hand side, with the earlier, Amenophis name, when the news reached him of the King's change of name, and that he accordingly surcharged the later form on what he had done, and then proceeded to cut the right-hand side. That the first cartouche, *Nfr-hprw-Rc Wc-n-Rc*, which need not have been altered, is also overworked on the left, may be due merely to the frequent necessity of cutting down a larger area than that needing modification, with a gentle declivity from the surrounding surface, to avoid a too abrupt scooping-out of the offending portion. If this view is correct, we must assume the King's change of name to have been nearly, if not exactly, synchronous with his first Jubilee, everything depending, for a more precise determination, on whether the Oxford and Louvre stones were begun before, or during, or after the Jubilee. The profiles of both royal figures seem to have been overworked; further, the upper part of the abnormal bounding line on the left has evidently been roughly recut along a depressed surface. The presence of the Queen's name in the later form is difficult to explain (*cf.* next note) unless it is a later addition. So many overworkings of Akhenaten's monuments are now known that it will repay students to be always on the look-out for such alterations on the official documents of this reign, since they are in all cases historically important.

⁸ It is mentioned as having already happened (*cf.* SETHE, 123, note, *ad fin.*) on Boundary Stela K. Despite repeated examination, in various lightings, of the much weathered date on this stela, I felt unable to decide more than that the regnal year is probably not "4." As the text of the "Earlier Proclamation" refers (K/20) to *nt idm-i m* (sic: my collation) *hst-sp 4*, "that which I heard in the fourth regnal-year," the King must be speaking after the fourth year; and as the month (IV *Pryt*) and day (13—sic: my collation) are the same in Stela K as in the date of the sixth year, "Later Proclamation," it is quite possible that the two texts are synchronously dated. This seems to be the view now held; *cf.* SCHÄFER in *Sitzungsberichte d. preuss. Akad. d. Wissensch.*, 1919, 477 foll. The fact that Stela K gives the Queen's name only in the earlier, shorter form (see *The City of Akhenaten*, 150, note 3) need not militate against

from the earlier to the later cartouche-name of the Aten took place at about the same time as the birth of Nefernefruaten¹, at latest in the ninth year (see SETHE, 116, note), and not earlier than the middle of the eighth year². It is thus quite possible for the Aten's name to have been altered, and the new epithet *nb hbw-šd* given him, on the occasion of the King's second jubilee, which would occur three years after the first; this assumes the King's two jubilees to have taken place in the latter parts of the fifth and eighth years, or in the earlier parts of the sixth and ninth years, respectively³. But for the reasons given in the preceding paragraph it is practically certain that the epithets *iml hb(w)-šd*, *nb hb(w)-šd* refer not merely to the King's jubilees, as assumed by SETHE, 116, note, and by SCHÄFER, (*op. cit.*, 479), but to the Royal Aten's own jubilees⁴. We have seen above that the Aten was considered as having commenced his reign as King on the same day as Akhenaten; there is thus every probability that his jubilees synchronized with the King's, his thirty-year *sed*-period being regarded retrospectively as having commenced at the moment when his future prophet and restorer to supreme rule as the Over-King was designated as Crown Prince. It may be more than a mere coincidence that the epithet *nb hbw-šd* is found associated with the second jubilee of Tuthmosis III.

III. REMARKS ON THE "DIDACTIC" NAMES.

The following are somewhat technical notes in connection with the cartouches in their earlier and later forms.

1. As has been mentioned above, SETHE points out that in both the earlier and later names the first cartouche begins with the words *ꜥnh Rꜥ*, which he compares with the traditional "throne-name" of the kings. It is possible that in the  (*ꜥ* *ku*) of *ꜥAnkh-Rꜥꜥ* mentioned in the meat-jar graffiti (*The City of Akhenaten*, Pl. LXIV, 75, 77, 79, 80, with p. 167; PETRIE, *Tell el Amarna*, Pl. XXIII, no. 54, with p. 33) the *ꜥAnkh-Rꜥꜥ* may be an abbreviation of the "didactic" name—whether merely graphic or not is doubtful⁵. If so, this view; the so-called "Later Proclamation" was not inscribed until two years after the date which heads it (see next note but one), while the "Earlier Proclamation" may have been inscribed much earlier, there being thus a considerable interval in which the Queen's name may have been changed. It will perhaps be well to speak of "Text A" and "Text B" of the Boundary Stelae rather than of the "Earlier Proclamation" and "Later Proclamation."

¹ She was born a little before the death of Mekotaten, which explains the exceptional use of *iml hb-šd* with the Aten's later name, mentioned above: the tomb was made in the time of transition from one name to the other. The exceptions in the tomb of Maḥu are perhaps to be similarly explained, in which case we have an approximate date for this tomb.



² The addendum to Text B on Boundary Stelae A and B is dated 30/4/8 and uses the earlier form of the Aten's name. Stelae S, N and R mention the renewal of the oath on 8/5/8 in an addendum which was cut at the same time as the rest of the inscription (see DAVIES, v, 22, note 3).



³ Worth citing in this connection is the inscription of Pawah, *Aeg. Inschriften aus d. kgl. Mus. zu Berlin*, II, 126, in which he says to the Aten: "thou hast caused me to see him (the King) in his first jubilee." Like every text from Tell el-Amarnah except Text A of the Boundary Stelae, it gives the Queen's name in the later form. It is likely that when Pawah had these words inscribed in the new city the first jubilee was still recent.

⁴ We find a "feast of the Aten" (*hb ltn*) of the seventh year, and a "feast of *ꜥAnkh-aten*" of the tenth year, mentioned in meat-jar graffiti (PETRIE, *Tell el Amarna*, Pls. XXIV, 87, XXIII, 46); but that these are connected with the jubilees is anything but certain.

⁵ For the abbreviation of names at this time we have "*Waꜥnerꜥ*" (evidently also phonetic) for "*Neferkheprurꜥ-Waꜥnerꜥ*," the King's "throne-name"; and "*Nefernefruaten-nefre(titi)*," probably merely graphic, for the Queen's name (*The City of Akhenaten*, 166, with note 8).

we have here two points of interest. Firstly, the official recognition of the *ka*' of the Aten would be shown. Secondly, as the earlier name begins *ḥnḥ Rḥ-Hr-ḥt*, "Raḥ-Harakhte lives!", while the later has for this *ḥnḥ Rḥ ḥkḥ ḥt*, "Rḥ lives!, Ruler of the Horizon," *ḥnḥ-Rḥ* would be more likely an abbreviation of the later name than of the earlier; now all the certain datings of these graffiti happen to be of year 9, and this fact would give us a *terminus post quem non* for the change of name—which agrees, as far as it goes, with the chronological conclusions arrived at above. But the existence of a "House of ḤAnkh-Aten" (*The City of Akhenaten*, Pl. LXIV, 6—13, with p. 166; PETRIE, *op. cit.*, Pl. XXII, 29, 30) makes it possible that in ḤAnkh-Rḥ we have simply a reference to the sun-god by his older name.

2. SETHE considers (p. 108) that the *ḥt* of *Hr-ḥt* in the earlier name is probably to be taken as a dual form, "Horus of the two Horizons," although he points out that it was still felt as a *nisbeh*-form ("Horus-of-the-Horizon") in the reign of Tuthmosis III. His chief ground for this view is the occurrence of *ḥt* in the *ḥkḥ ḥt*, which he translates "the Ruler of the Two Horizons," of the later name. But is it necessary to take *ḥt* as a dual in the latter case? I have pointed out above that *ḥkḥ ḥt* is the counterpart of several epithets, of which *ḥkḥ* is the first component, occurring in the cartouches of Eighteenth Dynasty kings before this time; and although "Ruler of the Two Horizons" would be a quite natural universalizing of the older, local titles "Ruler of Thebes," "Ruler of Heliopolis," it also may well be that in *ḥkḥ ḥt* the second element is an adjective, "of-the-Horizon," ("Horizontal Ruler" renders the construction but hardly the sense) as in the *ḥkḥ mḥ*, "Legitimate Ruler," *ḥkḥ nṯry*, "Godlike Ruler," which are found in the second cartouches of Tuthmosis III. There thus seems to be no occasion to depart from the traditional adjectival interpretation of the word in *Hr-ḥt*; and it must be pointed out that this view is strongly supported by the variant writing   in the first cartouche of the earlier form of the name, on a clay mould at Berlin, cited by SETHE (p. 113) in another connection².

3. It is worthy of note that in the phrase *ḥt m ḥt*, "who rejoices on the Horizon," the word *ḥt* is regularly written  in the earlier and  in the later form of the "didactic" name. There are very few exceptions to this rule; a test search through the results of our Society's excavations last season, DAVIES' six volumes and PETRIE, *Tell el Amarna*, in which altogether the first cartouche, sufficiently well preserved to judge by, occurs some 133 times, revealed but eight such³, and it is possible that some of these may be due to oversights of the copyists. This distinction offers a further criterion (*cf.* p. 170 above) for the approximate dating of damaged or fragmentary inscriptions of Akhenaten's reign.

¹ I now prefer (against my translations in *The City of Akhenaten*) to interpret the *ḥnḥ* which begins the Aten's names as being in the present indicative, as is done by SETHE, rather than in the optative, because that is the traditional usage in royal throne-names, which contain a statement as to Rḥ's nature.

² How far *ḥt-ḥm*, "Akhetaten" = "the horizon of Aten," has any direct connection with the titles *Hr-ḥt*, *ḥkḥ ḥt*, is doubtful. It may be recalled incidentally that the singular *ḥt*, "the horizon," always means the eastern one, and that the city would hardly have borne this name had it not been on the eastern bank. If the name of the city was decided upon in advance, the choice of a site was thus perhaps limited to the one side of the river.

³ Namely: earlier form without papyrus-roll, DAVIES, VI, Pls. 17, 19, 20 (once in each plate); later form with papyrus-roll, DAVIES, III, Pl. 21 (but hatched! later form written regularly eight times elsewhere in this tomb), IV, Pl. 27, right, v, Pl. 11, three occurrences with, symmetrically facing three without (*Culte d'Atonou*, Pl. 27, gives papyrus-roll in all six cases). The apparent exception DAVIES, VI, Pl. 27, line 1, is shown by the photograph, Pl. 41 (not to speak of *Culte d'Atonou*, Pl. 16), to be regular.

The writing with the papyrus-roll as the sole determinative of the verb is somewhat abnormal; either this, or considerations of space (𓂏 𓂏 for 𓂏 𓂏 , to allow the greater room required above), will have been the reason for the sign's disappearance on the revision of the name¹.

4. SETHE considers (p. 114) that the clause "in his name...", contained in the second cartouche, is to be taken as dependent on the words 𓂏 𓂏 etc. which begin the first, i.e., "Rē 𓂏 ...lives...in his name..."; adding that "it is more appropriate as the adverbial component of a sentence than as the attribute of a mere name." But it seems easiest of all to take the clause as adverbially dependent on the 𓂏 𓂏 𓂏 which immediately precedes it: "who rejoices on the Horizon in his name...." With the later form² of the name this interpretation seems much to be preferred (see sect. 9 below), and we may therefore apply it also to the earlier form.

5. The construction 𓂏 𓂏 𓂏 𓂏 , "in his name as," in place of the usual 𓂏 𓂏 𓂏 𓂏 , "in his name of," is strange and therefore noteworthy. The latter phrase occurs, of course, hundreds of times in the religious-magical texts from the earliest times; the former is perhaps found only in these cartouches of the Aten. There must therefore have been some definite reason for the adoption of this particular wording; some nice difference in meaning, obscure to us, may be thereby expressed, or the genitive 𓂏 may merely have been felt to be old-fashioned. It seems best to regard the 𓂏 after 𓂏 𓂏 as the 𓂏 of apposition, and to omit it in translation, as done by Mr DAVIES in his volumes.

6. Thus the earlier form of the "didactic" name may be rendered: "Rē 𓂏 lives, Ḥarakhte, who rejoices on the Horizon in his name: 'Shu who is Aten.'" The chief purpose of this name seems to be to establish the equation Aten = Shu = Ḥarakhte = Rē 𓂏 , which proclaims the identity of the Aten with the other purely solar gods of Egypt from the beginning of history, and so consolidates and legitimizes his position as the supreme god. Thus Atenism in its first phase, so far from attempting an entire break with the past, laid the strongest stress on the historic continuity of the new development and made a direct bid for the adherence of the older solar cults.

7. In the later form of the name the alterations appear to have been purposely confined to the minimum. Although the first two words "Rē 𓂏 lives" now occupy a place by themselves at the head of the cartouche, they are still written 𓂏 𓂏 , and not, as by all analogy we should expect in a royal name, 𓂏 𓂏 . This writing is evidently a conservative retention of the disposition of signs in the earlier form, where the 𓂏 , made very small, came first in a kind of sportive writing, the Horus-falcon having "life" set before him that he might breathe it (see SETHE, 111—2). In the first cartouche the verbal change is confined to a single word, one may even say a single consonant, 𓂏 , "ruler" being substituted for 𓂏 , "Horus." In the second, the words 𓂏 𓂏 𓂏 𓂏 𓂏 𓂏 are retained; for 𓂏 𓂏 𓂏 is substituted a group of signs which SETHE shows (pp. 118—9) must be read Rē 𓂏 , "Rē 𓂏 ," 𓂏 , "father," and 𓂏 , "he who has come (or, returned)." This severe economy in the changes may have been observed partly with a view to altering the name in already existing inscriptions with

¹ The distinction is observed by SETHE in his drawings (pp. 107, 117) of the earlier and later forms of the name, but without comment.—The mention of these drawings seems a convenient occasion to point out that the sign 𓂏 is not found at Tell el-'Amarnah, only 𓂏 .

² The 𓂏 of 𓂏 𓂏 had certainly disappeared by this time.

as little trouble as possible. Such alterations seem, however, to have eventually been very little carried out in the inscriptions; for some examples found by the Society last season, see *The City of Akhenaten*, 149 (b).

8. SETHE translates (pp. 119, 120) the second cartouche of the later name: "in his name as Father of Rē^c, who has returned as Aten." But although "Father of Rē^c" is a justifiable interpretation of the signs as they stand, it is open to important objections in this context. In the first place the only "Father of Rē^c" really known to us in Egyptian mythology is, as SETHE points out (p. 120, note 1), the water-god Nūn, who cannot be in question here. Secondly, that the sun-god should be called in the same breath "Rē^c" and "Father of Rē^c" in this carefully thought-out "didactic" name (i.e., "Rē^c...who rejoices... in his name: 'Father of Rē^c'")¹ seems an intolerable incongruity, in spite of the fact that Amenrē^c is called "the bull (i.e., husband) of his mother" (SETHE, 120-1). SETHE considers (p. 119) that the name "Father of Rē^c" is substituted for that of Shu because the god Shu in the Heliopolitan Ennead is frequently called "Son of Rē^c," and because this conception would later become distasteful to the reformers. But is it not doubtful whether the second member of the Ennead, and the solar god, are identical? In view of these difficulties it seems much more likely that the word *it*, "Father," is a title, and that the two words should be read Rē^c *it*, "Rē^c the Father."² No evidence need here be adduced for the pre-Atenist conception of the Sun-god as the Father and Creator of all things, the "Father of the Gods," the "Father of the Fathers of the Gods," for it is perhaps the most prominent feature of Egyptian solar theology. Further, not only is the Aten himself called "the Father and Mother of all that he has made,"³ and constantly referred to as the Father of the King, not only is he alluded to as "the Father,"⁴ but we have also the title "the Father" preceding his cartouches very frequently in datings, state records and formal titularies of the Aten and the royal couple—not however in the hymns and prayers, thus resembling Rē^c *it* in being an official or "didactic" appellation rather than a popular one. That the god- and king-signs in this word are both to be taken as determinatives, and that we are not to read *itf* ¹, "my (the king's) Father," is made certain from its use in datings, and in such cases as DAVIES, II, Pl. 5 (east architrave), III, Pl. 21, VI, Pls. 14 (architrave), 32⁵. Important in this connection is the passage DAVIES, II, Pl. 29,

¹ SETHE translates (p. 120 with p. 114), "Rē^c lives...in his name as Father of Rē^c...", making *m rn-f* dependent on *rn* (cf. sect. 4 above), which makes the incongruity still more acute.


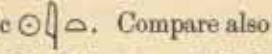
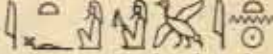
² To read as *it Rē^c* with the meaning "the Father Rē^c" is less easy, since the principle of "respectful graphic inversion" appears not to obtain with words in apposition.

³ DAVIES, IV, Pl. 32, right.

⁴ DAVIES, VI, Pl. 19, line 6 from left.

⁵ Variants (probably faulty) of the two last signs are .

⁶ See the discussions of this matter DAVIES, I, 8, II, 15, n. 2, III, 9, v, 31, n. 9. Three different explanations of the group are there given, Davies' first view (that it was to be read "my Father") being twice modified in course of time. The second (that we have here two determinatives indicating the dual divine and royal nature of the god) seems to me to be the correct one, for his third, namely that "my Father" eventually became a standing epithet, used even where the "my" was meaningless, is vitiated by the fact that the group is already used in Text A of the Boundary Stelae, one of the earlier documents of Atenism.

where we read [*h*]*t-tw* (?)¹ *hr ist itf pš Itn*, "'one'" appears (?) upon the seat of the Father the Aten." Here  is virtually a translation into the vulgar tongue of the more archaic . Compare also  "the Father, the living Aten," DAVIES, v, Pl. 33, bottom. "Father" seems indeed to be the official title *par excellence* of the Aten, corresponding to the *nī-swt bit* of earthly kings; cf. DAVIES, III, Pl. 27, top middle.

9. In the later name as in the earlier (cf. sect. 4 above) it seems preferable² to construe "in his name:..." as dependent on *h**cl m šht* immediately before, rather than on *ḥnḥ Rē*, since "Rē lives...in his name: 'Rē the Father'" gives a sense inferior to "Rē lives...who rejoices on the Horizon in his name: 'Rē the Father.'"

10. The sun-god had once been a more concrete sovereign, having ruled in Egypt as "king of gods and men alike," and since the abdication of his earthly throne, occasioned by his old age and the temporary disaffection of his human subjects, he had never lost his royal character; as Amen-Rē he was "king of the gods," and he could be styled "King of Upper and Lower Egypt, Rē," with the name in a cartouche³. As Horus he was essentially royal. But for a long time his sovereignty had been weakened by the existence of other mighty gods; now, by the agency of his son and prophet, he had attained undisputed supremacy as King of the Universe⁴. The accession of Akhenaten was thus (retrospectively at least) the occasion of a return to kingship for the sun-god, under the name of Aten; and this is what is referred to by the words "who has returned as Aten" in the later form of the name.

11. The following is my translation of the titles and names given at the head of this article:

(a)⁵ May the Good God live, who takes pleasure in Truth, Lord of all that Aten encompasses, Lord of Heaven, Lord of Earth, Aten, the Living, the Great, who illumines the Two Lands, may the Father (divine and royal) live: "Rē lives, Ḥarakhte, who rejoices on the Horizon in his name: 'Shu who is Aten,' " who is given life for ever and ever, Aten, the Living, the Great, who is in Jubilee, who dwells in the Temple of Aten in Akhetaten.

(b) Rē lives, Ruler of the Horizon, who rejoices on the Horizon in his name: "Rē the Father, who has returned as Aten."

¹ Or [*h**mē*]*t*? Not *h**cl ḥm.f*, as given by a slip, *ibid.*, p. 38, n. 2.

² The King.

³ Cf. p. 175, note 1 above.

⁴ "Destruction of Mankind" text.

⁵ E.g., *Cairo Hymn to Amenrē*, 2/2.

⁶ The king's later personal name "Akhenaten," i.e., "it is well with Aten," may be a direct allusion to this happy restoration.

⁷ Cf. e.g., DAVIES, II, pl. 5, v, pl. 27, VI, pl. 32.



Military air-photograph of Tell el-Mukayyar (Ur), shewing excavations of 1919; taken for the joint expedition of the British Museum and University of Pennsylvania in Nov. 1922. By permission of the R.A.F. Crown copyright reserved.

UR AND ERIDU: THE BRITISH MUSEUM EXCAVATIONS OF 1919

By H. R. HALL, D.Litt., F.S.A.

Plates XXX—XXXVIII.

As a sequel to the article, published in the *Journal* for October, 1922, on the British Museum excavations at el-'Obeid, near Ur, in its Egyptian relations, and in order to make the results of the work of 1919 at Ur itself (Tell el-Muqayyar) and Eridu (Tell Abu Shahrein) accessible to a wider circle of students, the present article is published to supplement the preliminary report that appeared in the *Proceedings of the Society of Antiquaries* for December, 1919¹. For its publication the hospitality of the *Journal of Egyptian Archaeology* has been accorded for the same reason that determined the publication in this journal of the article of Prof. Rostovtzeff on "The Sumerian Treasure of Astrabad" in 1920 (vi, 4 ff.) and my own on el-'Obeid, namely the lack of any Assyriological journal in this country which could provide proper facilities for illustration of archaeological finds. It is hoped that in future the *Antiquaries' Journal* will be able to provide these facilities.

In the preparation of this paper I have had the advantage of utilizing incidentally the further results, so far as they refer to and amplify my own work of 1919, obtained from the work in 1922-3 of the present joint expedition of the British Museum and the University of Pennsylvania (Philadelphia Museum) at Ur, directed by Mr C. L. Woolley, whose staff consisted of Mr F. G. Newton as architect, Mr Sidney Smith of the British Museum as Assyriologist, and Mr A. W. Lawrence. Mr Woolley publishes in the *Antiquaries' Journal* the preliminary report of his excavation of the new temple-building *Ē-nun-mah* which he has discovered, the tracing of the whole temenos-wall of the temple of the Moon-god, and his other important finds.

In 1918 Mr R. Campbell Thompson was commissioned by the Trustees of the British Museum to take up again the work at Tell el-Muqayyar and Abu Shahrein, which had been begun by British explorers so long ago as the time of the Crimean War, and since then had been left untouched. Mr Thompson, who happened then to be serving in Mesopotamia as a captain in the Intelligence branch of the army, made only a preliminary examination of Ur, and devoted most of his attention to Shahrein. The results of his work have been published *in extenso* in *Archaeologia*, LXX (1920). His discoveries there related chiefly to the prehistoric period, and the pits and *sondages* made by him in order to obtain a correct idea of the stratification of the mound have yielded most valuable contributions to our knowledge of early Babylonian archaeology.

The explorers of Crimean days, whom he followed, were Mr W. K. Loftus and Mr J. E. Taylor. The former went out to Mesopotamia first in connexion with the Turco-Persian Frontier Commission of 1849-52, under the orders of Colonel, afterwards Major-General Sir W. F. Williams (later the famous defender of Kars), and secondly in conduct of the

¹ In the present paper Figs. 1, 5 and 6 (the latter with slight modification) are reproduced from the *Proc. Soc. Ant.* with kind permission of the Council.

expedition sent out by the Assyrian Excavation Fund at the end of the year 1853. In the year 1850 Mr Loftus visited Muḳayyar¹, and as a result of his visit excavations were undertaken there in 1854 for the British Museum by Mr Taylor, then British Vice-Consul at Basrah, while Loftus was himself digging at Warka for the Assyrian Excavation Fund².

Loftus did not actually dig at Ur or visit Shahrein, but Taylor carried out extensive excavations at the former place and was probably the first European in modern times to visit Shahrein, which had hardly ever been visited since³, till Thompson and then I went there. At Shahrein Taylor was unable to do much digging but brought back a most valuable report of his observations, which were our sole authority on ancient Eridu until Capt. Thompson dug there in 1918.

The grassy mounds of Muḳayyar, crowned by the dull red mass of *É-lugal-galga-si-sa* ("The House of the King of Right Counsel"), the *ziggurat*-tower of Ur (Pl. XXXI, 1), are known to many who served in Mesopotamia during the Great War. The tower stands at the northern end of the mounds (see the plan, Fig. 2), which form a roughly rectangular mass divided into two parts by a shallow wadi, once the bed of a canal, which probably

¹ W. K. LOFTUS, *Travels and Researches in Chaldaea and Susiana*, 127 ff.

² TAYLOR's reports on his work at Ur and Shahrein were published in the *J.R.A.S.*, xv, 1854, 260 ff., and 1855, 404 ff.

³ I can only find record of one traveller having visited Shahrein between Taylor and Thompson, Sir E. Wallis Budge, who went there and to Muḳayyar in 1888 from Sūk-esh-Shuyūk (By Nile and Tigris, i, 241). Prof. HILPRECHT's statement (*Explorations in Bible Lands*, 181) that "owing to the seclusion of the spot and the insecurity of its neighbourhood, Abū Shahrein has never been visited again [since Taylor's time] by any European or American explorer," is not quite correct, therefore. But so unknown was Shahrein, owing to the fact the Turkish authorities would rarely allow anybody to go there or even to Muḳayyar, on account of possible attacks by the Muntefik or by desert Arabs, that, as Hilprecht remarks (*op. cit.*, 178, n. 1), it was often, in defiance of the direct statements of Taylor (which can never have been read), placed not only miles away from its real situation, but even on the wrong side of the river! The most conspicuous example of this extraordinary error known to me is in the German Assyriologist DELITZSCH's book *Wo lag das Paradies?* (published in 1881): he says (p. 228) that Eridu is "heutzutage Ruinen von *Abu Šahrain* am linken Euphratufer nicht weit stromabwärts von Muḳajjar, etwa der Araberstadt *Sūk es-Šejāh* gegenüber. Näheres bei Ménant pag. 59 ff." The reference is to MÉNANT's *Babylone et la Chaldée*, published in 1875, and Hilprecht ascribes the same error to Ménant, from whom Delitzsch presumably derived it. I cannot find that Ménant ever definitely stated that Shahrein was on the left bank, but in his map it certainly is so placed, and Delitzsch must have followed this without ever having looked at Taylor's report in the *Journal of the Royal Asiatic Society* for 1855. The mounds lie sixteen to twenty miles away in the desert on the opposite side of the Euphrates! The error was corrected by Scheil in 1898 (*Rec. de Trav.*, xxi, 126), but even he seems also quite ignorant of Taylor's publication, although Ménant had reproduced the latter's plans. As Hilprecht says, Scheil's statement "is correct, but only confirms facts better known from Taylor's own accurate reports, which, however, do not seem to have been read carefully by Assyriologists during the last twenty-five years" (*op. cit.*, 179, n.). Hilprecht himself, however, has not always understood Taylor. He has in his mind an exaggerated idea of the "depth" of the "valley" in which Shahrein lies. Taylor unluckily calls it "deep": it is merely a shallow depression, not more than twenty feet below the rest of the desert, if that. It is "deep" only for Babylonia, in relation to the surrounding landscape. But Hilprecht is so misled as to write that "the ruins of Abu Shahrein, situated as they are in a deep valley, cannot be seen from Muḳayyar." One has only to mount the *ziggurat* to see Shahrein plainly enough. His denial that Shahrein "is identical with Nowawis, as assumed by Peters (*Nippur*, II, 96, 298 ff.)," is also erroneous. I have heard Shahrein called Nowawis myself; and the name is said to mean "grasshoppers" and to refer to the innumerable cicadas which fill the air with their strident shrilling there and on the desert around in the spring and summer mornings. I have been nearly deafened by them in May. Thompson however (*Archaeologia*, loc. cit., 106) heard the name interpreted as meaning "coffins" (from *nauds*), a reference to the fragmentary late *larnakes* of pottery that lie about on the subsidiary mounds near by.



1. Ziggurat and Camp, Tell el-Mukayyar (Ur), from N.W.



2. The mounds of Abu Shahrein (Eridu) from the South.



3. The mounds of Abu Shahrein (Eridu) from the East.

UR AND ERIDU.

separated the temple to the north from the town that lay to the south of it¹. This is well seen in the fine air-photograph (Pl. XXX) taken for Mr Woolley by the Royal Air Force. The tower, though it is only about 70 feet in height, stands up a landmark to the whole surrounding country, on whose interminable flatness it bulks like a mountain (Pl. XXXII, 2). It has never, owing to the strong winds that blow here from the desert and have always had a powerful denuding effect, been overwhelmed and buried in mounds of debris and accumulated rubbish, and must always have been one of the most conspicuous features of this part of the Euphrates valley. From its summit, looking south-westward, we see, distorted by mirage which cuts off its base and ends so that it looks like an airship swimming in



Fig. 1. Sketch map of S. Babylonia, shewing ancient sites.

the heat-haze, the grey-tipped mound of Tell Abu Shahrein (Pl. XXXI, 2 and 3), the site of the ancient Eridu, fourteen miles away in the desert. Four miles off to the west, looking along the line of railway, we could see, were it conspicuous enough, the tiny *tell* of el-Obeid, where in 1919 I found the remarkable Sumerian antiquities described in the *Journal* last year. The first European to record his visit to Muqayyar was the Italian traveller Pietro della Valle, in 1625²; and after him several others, notably Baillie Fraser, in 1835³, mentioned it as a remarkable monument of ancient days. Then came the visits of Loftus and Taylor.

¹ A cone-inscription of Ur-Nammu, found in 1923, records the building of a temple of Enlil and the canal *En-umun-nun*, which may be this.

² See HILPRECHT, *Explorations in Bible Lands*, 172, 173.

³ *Travels in Koordistan and Mesopotamia*, II, 90.

Taylor's work consisted chiefly in the examination of the *ziggurra*t or temple-tower and in the excavation of a building in a little *tell* ("Taylor's Mound" on the plan, Fig. 2) close to its south-eastern face¹, no doubt part of the temple of the Moon-god. He also excavated some tombs. In the course of his work on the *ziggurra*t he disinterred the four foundation-cylinders embedded at the four corners in the bricks of the new facing supplied to the tower by the last Babylonian king, Nabonidus. These were of course not the original foundation deposits of the building, which dates at least to the time of Ur-Engur or Ur-Nammu², the first king of the Third Dynasty of Ur, and is probably much older, the original crude brick core dating no doubt originally from early Sumerian times.

Taylor ascertained to his own satisfaction, by driving from the top of the first stage a shaft and tunnel 14 feet down and 36 feet into the centre of the structure, that the *ziggurra*t (and so are probably all other *ziggurrats*) is a solid mass of crude brick. Capt. Thompson investigated the summit of the *ziggurra*t in 1918, but did not carry out any further excavation of the building. This particular tower was burnt in ancient times, and its crude brick core is dyed bright red with the effect of the burning. The companion tower at Shahrein, also built of crude-brick, remains white, never having been burnt. It is not impossible that the fire which consumed the tower of Ur was the same as that which burnt the building in the temple precincts, discovered by me, and described below. It might be ascribed to the Elamites, who sacked and perhaps burnt Ur about the year 2185 B.C., at the end of the Third Dynasty³, or to some other conqueror, such as Samsu-iluna of Babylon (c. 1900 B.C.)⁴, but for the fact that in that case the facing-wall of Ur-Nammu would have suffered, which it has not. The fire may equally well have happened before Ur-Nammu's time, and have been the motive for his work.

My work of 1919, in the course of which the first new temple buildings were discovered and excavated since the time of Taylor, lasted three months, from February till May, 1919. I had the occasional assistance of the British sergeant-major in charge of the 70 Turkish prisoners who were kindly supplied to me by the military authorities as diggers, with

¹ Not "south-eastern corner," as Taylor says (*J.R.A.S.*, 1854, 265); the corners, not the sides, are directed towards the cardinal points, as is usual in Babylonian temple-towers.

² Until lately the name was generally read "Ur-Engur," which is probably erroneous. The brick facing wall that still exists is Ur-Nammu's work.

³ For new views as to the date of the end of the Third Dynasty of Ur see WEIDNER, "Könige von Assyrien" (*M.V.A.G.*, 1921; II, 62); *Guide to the Babylonian and Assyrian Antiquities in the British Museum*, 1922, 245. Other *ziggurrats* have suffered destruction by fire, like that of Birs Nimrūd (Borsippa). That of Oheimir (Kish), on the plain east of Babylon (now being excavated by Mr E. Mackay for the Weld-Blundell expedition), with its red colour (its name means "reddish"), looks from a distance as if it also had been burnt. The extraordinary effect of the fire at Birs, which has completely vitrified solid masses of brickwork, is well known. It has occurred to me that the extraordinary fierceness of this fire as well as of that which reddened the crude brick core of the tower of Ur may have been due to the use of brushwood soaked in pitch from Hit, or even in *mazūt*, crude petroleum. If the fire of Ur may be assigned to an Elamite invasion before the time of Ur-Nammu, the theory of the use of *mazūt* gains considerably in probability.

⁴ The date of Samsu-iluna, with that of the whole First Babylonian dynasty of Hammurabi, is again in the melting-pot. King thought that Kugler had settled the matter by his astronomical calculations, but the rising generation of Assyriologists seem to regard it as open to discussion, owing to recent discoveries of King-lists. At any rate, the date 2080-2042 B.C. which I have adopted for Samsu-iluna on King's authority (*Anc. Hist. Near East*, 5th edn. (1920), 211) is apparently not to be regarded as definitely certain (cf. *Brit. Mus. Guide to Babylonian and Assyrian Antiquities* (1922), 246, where the date of Samsu-iluna is given implicitly as about 1900 B.C.). WEIDNER (*loc. cit.*, 63) gives 1912-1875 B.C. as his date.

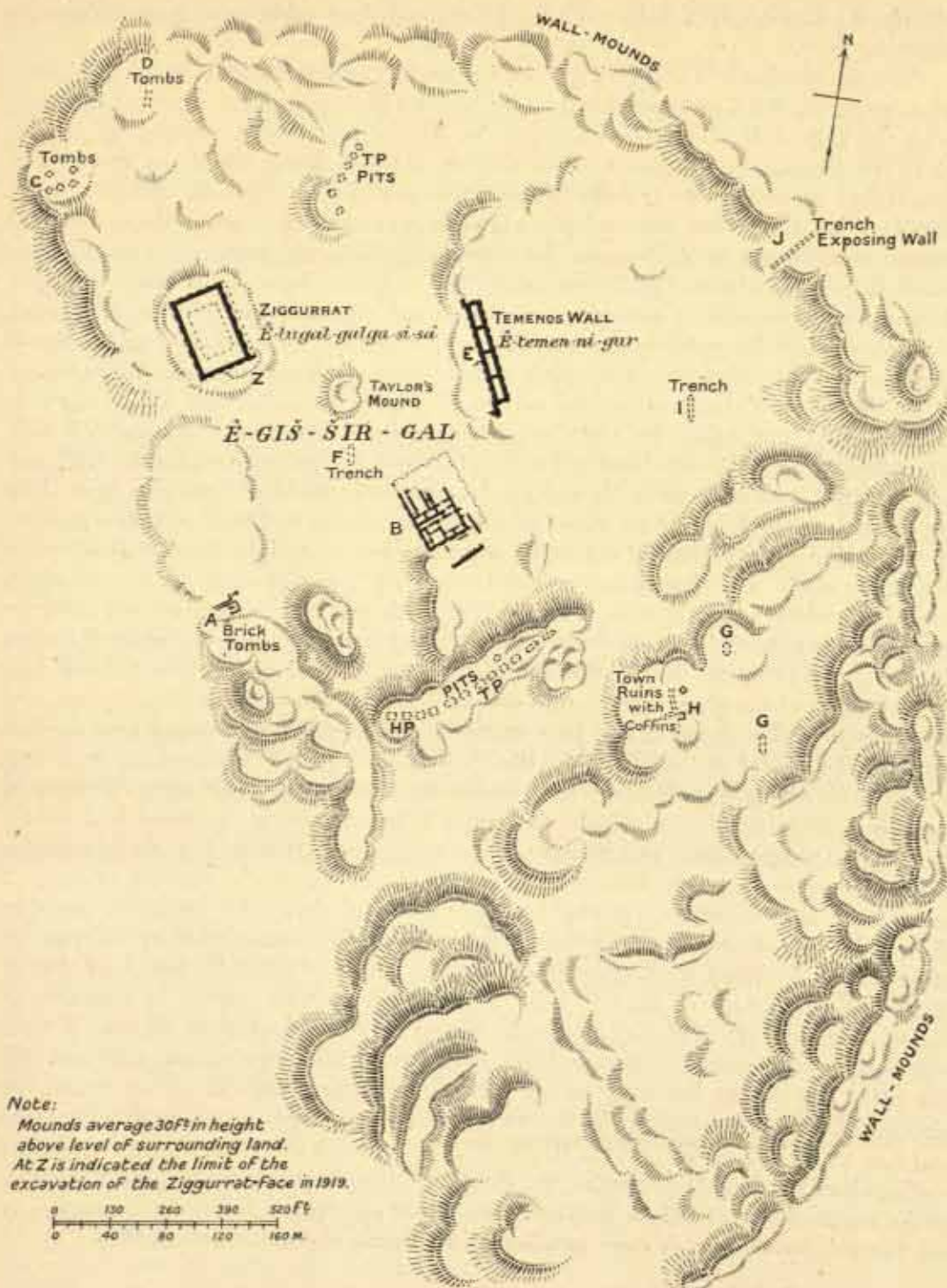


Fig. 2. The Mounds of Ur, shewing the ziggurat and the buildings excavated in 1919 (from the measurements of F. G. Newton and O. D. O'Sullivan, and an air-photograph).

'Amrân ibn-Hamûd, Prof. Koldewey's head man, and three other reises from Babylon, to supervise them.

The sketch-plan of Ur (Fig. 2), drawn by Mr C. O. Waterhouse, is based on the air-photograph, Pl. XXX (also published by Mr Woolley in the current *Antiquaries' Journal*), with the help of Mr Newton's notes and the original sketch-plan prepared by 2nd Lt. O. D. O'Sullivan, R.E., to replace that of Taylor, on which it was difficult to plot the new excavations accurately (Mr O'Sullivan's plan was published in *Proc. Soc. Ant.*, Dec. 1919, Fig. 4). Figs. 3 and 4 are corrected plans, brought up to date by means of the more recent measurements taken by Mr Newton. Mr O'Sullivan, who also prepared other plans (one of which is here reproduced, Fig. 5), was assisted by an Indian surveyor, and they were both lent to me by the military authorities on the ground that, as a state of war still existed, such plans might be useful to the army in case of an attack on Nasiriyah from the side of the desert. Otherwise I should have had to have made rough preliminary plans myself.

In the course of the three months' work at Ur I cleared the S.E. face of the *ziggurat* (Pl. XXXII, 1) and disinterred what looked like a brick staircase parallel to the N.E. face, which I presumed to be that found by Taylor¹. It is built up against the face at its south end, and is certainly an addition by Nabonidus. Its measurements correspond with those given for his staircase by Taylor, from whose description however it is difficult to gather whether it lay parallel with the face of the tower or approached it at right angles². Possibly the latter was really what he meant, and this "stairway" may prove to be merely partly removed brickwork. Mr Newton is inclined to think that this is the case, and that the *ziggurat* was more probably approached by a stairway ascending the centre of the N.E. face. If this proves to be the case, Taylor may have found the real staircase (now covered by débris) and not have given a sufficient description of it. It is not impossible, of course, that the stairway of this *ziggurat* may have started at the E. corner, then passed from the first stage to the second diagonally across the N. face, and so on, finally reaching the fourth stage (which will presumably have been the summit) at the E. corner again. This would agree with Herodotus's description of the temple of Bel at Babylon: ἀνάβασις δὲ ἐς αὐτοὺς ἔξωθεν κύκλῳ περὶ πάντας τοὺς πύργους ἔχουσα πεποιήται (Hdt. I, 181). As he says this tower had eight stages (we know that in reality it had seven), the staircase or ramp of ascent may have covered or passed two stages on each face. But *ziggurats* probably differed in their arrangements, for that of Eridu (Shahrein) was ascended by a stepway or steep ladder-like ramp that went directly up the middle of the S.W. face³, and that of Nippur (*Ê-kur*), by one on the S.E. face⁴. *Ziggurats* have been restored by architects in various ways; and it will be very interesting to read the conclusions which Mr F. G. Newton will come to with regard to that at Ur as the result of his investigations next year. He has noted one curious fact, that on the platform of the first stage at Ur are recesses or alcoves (afterwards bricked up) in the wall of the second stage (seven on each long side and four on each short side), which Mr Smith compares with the θῶκοι ἀμπαυστήριοι, the resting-chambers for persons making the ascent, mentioned by Herodotus in his description of the temple-tower of Bel at Babylon: μεσοῦντι δὲ κου τῆς ἀναβάσεως ἐστὶ καταγωγὴ τε καὶ θῶκοι ἀμπαυστήριοι, ἐν τοῖσι κατίζοντες ἀμπαύονται οἱ ἀναβαίνοντες (I, 181).

¹ *Journ. R.A.S.*, *ibid.*, 261.

² "At the eastern side is a staircase, 3 yards broad, with sides or balustrades 1 yard broad, shooting out of two supporting buttresses, 2 yards broad, which leads up to the edge of the basement of the second story."

³ TAYLOR and THOMPSON, *loc. cit.* q.v.

⁴ HILPRECHT, *op. cit.*, 371-2.



1. The S.E. face of the Ziggurat or Temple-tower at Ur:
as excavated, 1919.



2. East corner of "B" (so far as actually
excavated) : Ziggurat in background.



3. S.E. face of "B" : from so-called "E. corner."



4. General view of "B," Ur, looking N. Ziggurat and Taylor's mound
in left background ; circular bread-oven in right foreground.

UR.

Besides a small brick conduit for water at the base of the tower, a few antiquities were found in 1919, notably some fragments of blue-glazed bricks of Nabonidus's time and an Egyptian scarab-mould of pottery (Pl. XXXVII, 6) which is presumably of XXVIth Dynasty date but might be earlier. A great quantity of débris had gradually flowed from the upper part of the tower, the result of gradual disintegration during the winter rains and summer heats of seventy years, which had covered up all traces of Taylor's work. The three other faces of the *ziggurra*t remain to be cleared. The work, though heavy, could be effected, on account of the good preservation of much of Ur-Nammu's sheath-wall, especially on the two short S.E. and N.W. sides of the oblong tower (see Pl. XXXI, 1). It presents none of the difficulties that will confront the excavator of the *ziggurra*t of Abu Shahrein, which has melted, so to speak, into an almost amorphous mass (Pls. XXXI, 2 and 3; XXXVI, 3). The temple-tower of Ur stands up complete and clean-cut like an Egyptian pyramid which, but for its oblong shape, it superficially resembles (Pls. XXXI, 1; XXXII, 2)¹.

My chief work at Ur was the excavation of part (Fig. 3) of a large burnt-brick building ("B" on the plan, Fig. 2), which has been provisionally and tentatively identified with *Ê-harsag*, "The House of the Mountain," an edifice erected by the king Shulgi (or Dungi) of the Third Dynasty of Ur, possibly (since no god's name is mentioned in the brick-inscription commemorating it) a civil building, perhaps a royal palace. This, however, is by no means certain, and it may be that the building is really part of the great temple of the Moon-god, *Ê-giš-šir-gal*, "The House of Light." Bricks were found in a pavement at the N. end of "B" which had the *Ê-harsag* inscription of Shulgi². But in the outer wall of "B" Mr Newton and Mr Sidney Smith have this year found bricks of Ur-Nammu, the predecessor of Shulgi, commemorating the building of temple and town-wall³. So that the building was certainly begun by Ur-Nammu, and if the *Ê-harsag* bricks were *in situ* at its northern end, either Shulgi must have finished it and called it *Ê-harsag*, or, as Mr Woolley is inclined to suggest, he may have used bricks intended for *Ê-harsag*, which was elsewhere. "B" lay within the temenos of the Moon-god, which Mr Woolley and Mr Newton have traced this year well round to the south of it. Also its outer wall was built with "temple" bricks. If "B" is *Ê-harsag*, it was then none the less part of the temple of Nannar. If not, *Ê-harsag* is really somewhere else close by and bricks belonging to it were used in the temple either by Shulgi or at a later time. Mr Woolley thinks it was elsewhere, but still within the temenos. But Prof. Langdon tells me that he doubts whether a civil building, as *Ê-harsag* presumably was, would be found within the temenos. If this is so, either *Ê-harsag* was not a civil building or "B," at any rate, is not *Ê-harsag*. Mr Woolley and Mr Newton are inclined to regard it as part of the actual shrine of Nannar, with rooms to the south-east used as living-quarters by the priests. When I left Ur in May 1919 I hoped to return in the next season to complete the investigation of "B" as well as the excavation of el-'Obeid, but circumstances were not favourable to the resumption of the work until last year, when Mr Woolley and Mr Newton carried out further excavations in "B," finding beneath the burnt brick walls other and possibly older walls of crude brick,

¹ So far as we know at present from archaeological researches the resemblance is purely superficial, but some have supposed in the texts the *ziggurra*t is distinctly not only a tower, but the tomb of the god (cf. HILPRECHT, *op. cit.*, 469). The possibility that there was really a closer relationship between *ziggurra*t and pyramid will have to be considered when more is known of the connexion of the *gigunnu* ("dark chamber") of cedar-wood, mentioned in the texts as "beloved" by the god (*S.A.K.I.*, p. 68; 5, 18), with the *ziggurra*t. But, as we have seen, Taylor's investigation shews that the Ur *ziggurra*t is solid.

² *S.A.K.I.*, 186, brick B.

³ *Ibid.*, 190, brick B.

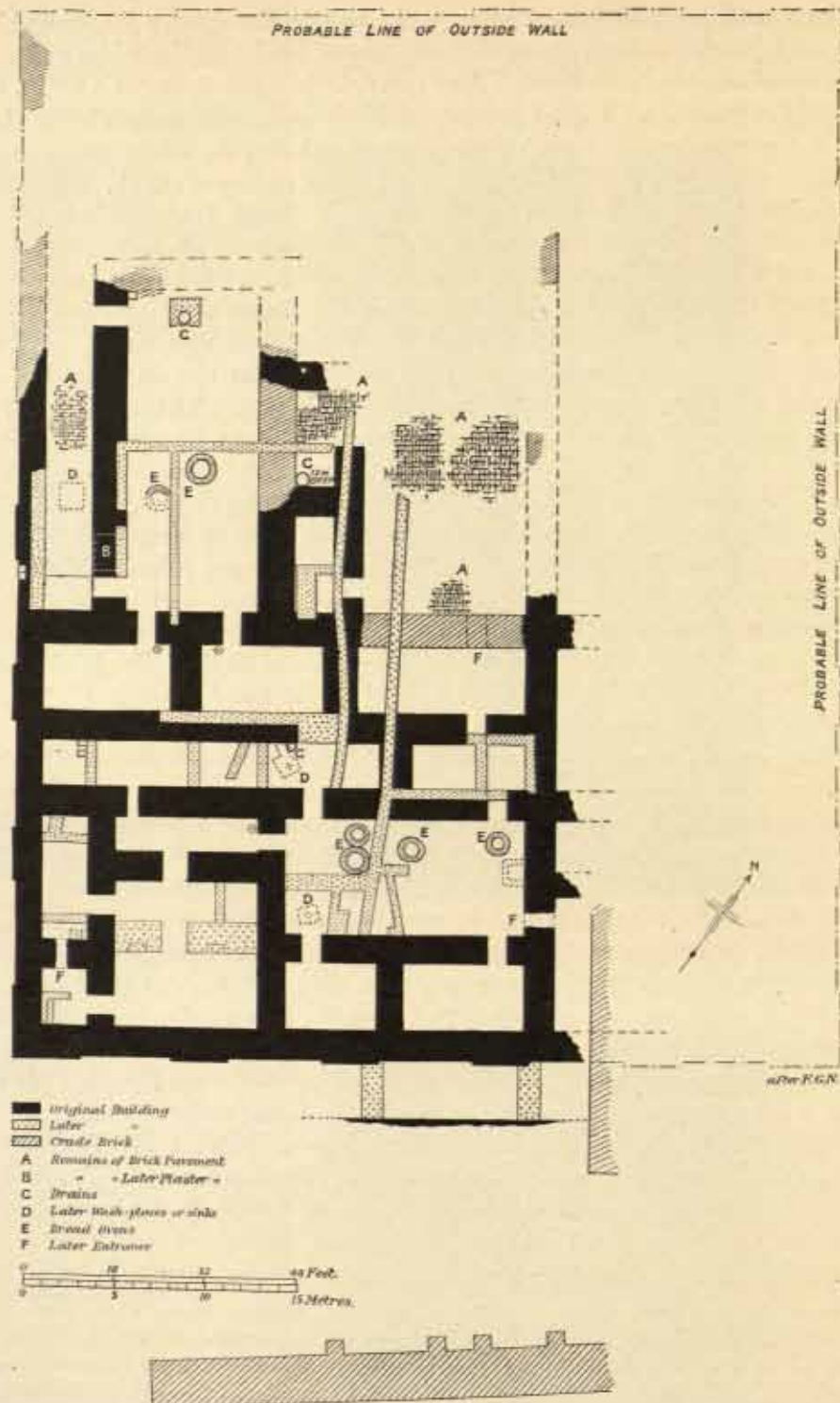


Fig. 3. The Building "B" at Ur: the original building replanned after further investigation by Mr F. G. Newton; the later buildings from the measurements of Mr O. D. O'Sullivan, corrected by Dr Hall's field-notes.



1. Bread-ovens, "like lunar craters,"
in the building "B."



2. Chamber of Ur-Nammu in "B,"
with entrance closed by later wall.



3. Washing-place made of ancient bricks:
"B," Ur. Behind is a sink of super-
imposed pottery drums.



4. The Town-wall at "J."

which is the material one usually associates with temple-buildings in Babylonia. They also found a foundation deposit, consisting of one of the usual copper figures, holding a basket on the head and a stone dedication tablet—uninscribed! This was a disappointment, as the tablet should have told us beyond cavil what the building was and who built it.

In rubbish outside the E. "corner" of "B," so far as it was then excavated (Pl. XXXII, 2), I had found, displaced, a stone foundation tablet of *Ê-mah*, "The Noble House," the temple of the goddess Ninsun, dedicated by Ur-Nammu, the founder (Pl. XXXVII, 4). Believing "B" to be *Ê-harsag*, I was inclined to think¹ that this tablet must belong to another building of which a crude brick wall (see Fig. 3) found by me close by to the N.E. seemed to be the first sign. I was predisposed to regard this presumed building as a temple, as the wall was of crude brick. But if this wall turns out to be connected with the simple wall of enceinte to the south-east (see Fig. 3) and not to belong to a building at all, the tablet may really be one of the foundation deposits of "B," which will then be *Ê-mah*. Until, however, its precise nature and relation to the other buildings, and especially to *Ê-nun-mah*², the new temple found by Mr Woolley this year, is determined, we shall continue to know it simply as "B." So far as excavated in 1919 (Fig. 3) it measures 100 feet long by 99 feet broad. The burnt bricks of "B" are of the fine type of the period of Ur-Nammu and Shulgi, 14 inches square, and well and truly laid in walls five feet thick, shewing that the Babylonians knew how to build to keep out both the heat of summer and the cold of winter. The outer walls, best preserved (to a height of eight feet) on the south-eastern and south-western sides, are built with "panelled" faces, recesses about eight inches deep and ten feet long alternating with "buttresses" of about the same length, in much the same style as the wall of the *ziggurat* (Pl. XXXII, 3). The corners of the building were carefully rounded off.

The plan of the original building of Ur-Nammu (and Shulgi?), to which additions seem to have been made somewhat later, is very clear (Fig. 3, after the measurements of Mr Newton) although in later times it was obscured to some extent by jerry-built erections (often composed of ancient bricks; see Pl. XXXIII, 2), which may probably be assigned to the late Assyrian period, when the place was certainly inhabited, or even to more recent times. These additions were of a domestic character, and consisted of rooms and corridors with walls usually built in the worn-down stumps of the ancient walls. Very often, however, smaller rooms were found within the ancient chambers, and ancient doorways were blocked up by later walls (Pl. XXXIII, 2). The ancient vertical drains³, many of which were no doubt coeval with the older building, were often adapted for use with later wash-places and sinks (Pl. XXXIII, 3). Circular *tholos*-like erections, looking like lunar craters (Pl. XXXII, 4; XXXIII, 1), measuring about six or eight feet in diameter at the base and less where broken off towards the crown, were most probably bread-ovens, though it has also been suggested that they were pottery kilns. No doubt a good deal of the plain drab pottery of later date found in the upper débris of "B" and in the tombs was made here, but the "craters" are more likely to have been ovens than kilns.

¹ *Journ. Centr. As. Soc.*, ix (1922), 122.

² This name may be read *Ga-nun-mah* as well as *Ê-nun-mah*, Mr Gadd informs me, but in later times only the form *Ê-nun-mah* would be used.

³ These drains are of the usual type found in Babylonian ruins, made of superimposed pottery drums, each fitting into the other (being alternately of slightly larger and smaller diameter), often perforated at the sides, and when complete crowned with a conical top. One of these drains in "B" was found by Mr Newton to be no less than 12 metres deep.

From a find of four very finely inscribed and baked tablets (Pl. XXXVII, 5) of the tenth year of Shamash-shum-ukin (B.C. 659-8) and the nineteenth and twentieth years of Ashurbanipal (B.C. 651-649) we see that certain priestly families then lived here; the tablets being legal documents (wills, legacies, and sales of land) belonging to a single priestly family.

The later erections were certainly added after the building had long been deserted and had fallen into ruin. In fact it may be doubted whether it was used for many years after the fire which destroyed it. The traces of this fire were very apparent at the north end of the building, thick layers of ashes lying in several of the rooms. Owing to this destruction antiquities of the period of the original building were rare, but among them were two fragments of life-size human heads in dolerite, from statues, one of a priestess or goddess (Pl. XXXVII, 3), the other of a man, of the finest work of the "Gudea period," no doubt dating from the time of Ur-Nammu or Shulgi (Brit. Mus. Nos. 114197, 114198). Probably the statues were smashed by the Elamites. The stone tablet of Ur-Nammu, recording the founding of Ê-mah, has already been mentioned. In a chamber at the N. end were found a few account-tablets of the time of the dynasties of Ur and Isin.

The next work of importance was the excavation of a section of Ê-temen-ni-gur or Ê-temen-ni-il, "The House of the Foundation that is clothed with Splendour," which is the temenos-wall ("E") of the temple (Fig. 4, Pl. XXXV, 1). It was built of crude-brick, 38 feet thick, and with chambers 48 feet by 14 feet within its thickness. Similar chambers (casemates or storage-vaults) have been found within a wall of the same kind at Nippur¹. The outer wall is recessed and niched in the usual Babylonian style, preserved down to the latest ages, which is so remarkably paralleled in the brick buildings of the archaic period only in Egypt². This resemblance is one of the strongest weapons in the armoury of those who believe in an early connexion between the two cultures. The uppermost courses of this wall were uncovered by me for about 250 feet (Fig. 4): the whole has now been either

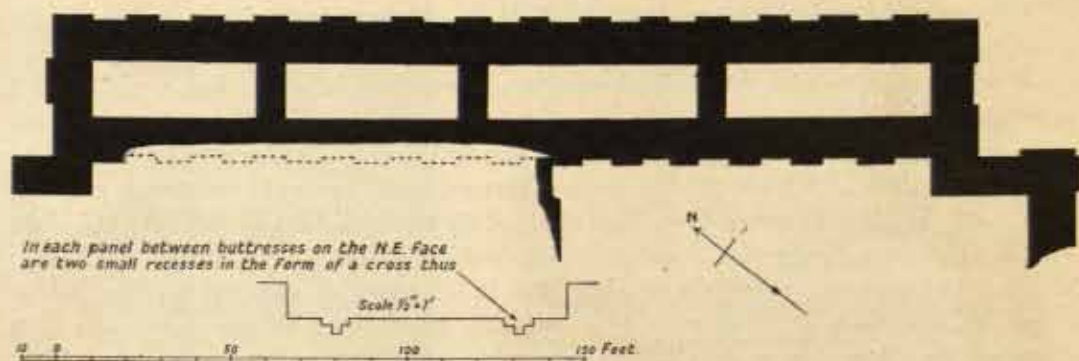


Fig. 4. Portion of the temenos-wall of the Temple of Nannar, Ur, between the gates of Bur-Sin and Cyrus: excavated 1919.

excavated or traced by Messrs Woolley and Newton all round the *ziggurrat*, south of the building "B." It was discovered by me owing to the clear wind-swept traces of the tops of the walls on the surface. Its line of direction is parallel with the N.E. face of the *ziggurrat*.

¹ See plan in HILPRECHT, *Explorations in Bible Lands*, 470.

² HALL, *Ancient Hist. of Near East*, 5th edn. (1920), 88-89; *Cambridge Ancient History* (1923), I, 263, 582.



1. Double-pot burial at Ur.



2. A pottery coffin (*larnax*) burial at Ur.



3. An inverted coffin burial at "A": Ur.
Vases found outside as shown.



4. An inverted coffin of ribbed
pottery in the wall-trench at "J," Ur.



1. The temenos-wall of the temple of Nannar, Ur, shewing store-chambers with interiors unexcavated.



2. Larnax, pithos and corn-bin in house: Ur.



3. Pottery larnakes in the ruins of early houses: Ur.



4. Desert Arabs excavating Sumerian houses at Shahrein (Eridu).

UR AND ERIDU.

Originally it is of very early date, but has one gate as late as the time of Cyrus, and another of Bur-Sin's time.

The outer wall of the city, east of the *ziggurat*, was also investigated, a trench (Pl. XXXIII, 4) being driven through its mound at "J" with the result of discovering what is apparently the worn stump of the town-wall, only about twelve feet in height, with other cross-walls above it, which remain to be more closely examined in the future. Burials in pottery coffins or *larnakes* and tubs (often inverted) of the common Babylonian type were found here (Pl. XXXIV, 4) as in all other parts of the mound.

The two most important tombs were found at "A," buildings of small yellow rectangular bricks, with keeled roofs, measuring 8 ft. 10 ins. long by 3 ft. 6 ins. high. One had been violated anciently; the other contained a large pottery larnax of the oval "bath" type, with ribbed sides and cover, measuring 4 ft. 7 ins. long by 2 ft. 9 ins. wide and 2 ft. 6 ins. high. In it was a contracted burial, the body lying on its left side with the knees drawn up to the head. A plain silver pin was placed at each shoulder. A few pots of plain drab ware were in the larnax. Contracted burial does not in Mesopotamia mean that the burial is necessarily early, as the custom of burying in this position probably continued till the Parthian period, when the burials are at full length. But in the case of these tombs no means of fixing the date were found.

Another burial at "A" was found beneath an inverted ribbed tub, with a row of the plain drab pots ranged against it outside (Pl. XXXIV, 3). Many burials in larnakes, not inverted, with lids and without, were found in other parts of the mounds, notably among the town-ruins to the south of the transverse wadi, at "H" (Pls. XXXIV, 2; XXXV, 2 and 3). Nothing was found in the larnakes but a few pots and saucers of the same plain drab ware, sometimes with birds' bones in them, with occasionally a few beads of agate, carnelian or chalcedony. The bones were always almost dust, nothing being at all well preserved but the skull. The coffins were buried anyhow in the house ruins, walls often being knocked away to receive them (Pl. XXXV, 2 and 3). This looks as if they

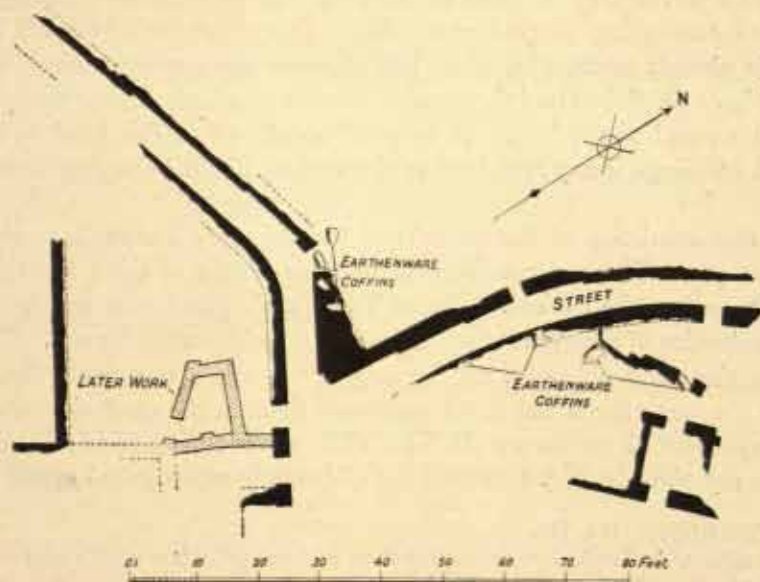


Fig. 5. Streets and Burials at Ur.

were buried beneath later houses (of which hardly any traces remain owing to denudation), built over and in the ruins of earlier town-buildings (Pl. XXXV, 2, shewing a great pithos and a pottery corn-bin in position), which still remain owing to their solid construction. If so, these burials will be much later than the time of the Third Dynasty, to which possibly the older town-buildings belong. But this question of their date remains to be worked out, and these conclusions are purely tentative, and are liable to revision as the work proceeds. The full publication of the burials discovered in 1919 is reserved for the final official publication of the excavation. The streets of the old town, of which one or two were examined by me, are very narrow and usually curved (Fig. 5). Further excavation there should yield interesting results.

At "C" and "D," north of the *ziggurat*, burials of another type were found, enclosed in two wide-mouthed round pots, placed mouth to mouth (Pl. XXXIV, 1). At the base of each pot is a nozzle-shaped vent to facilitate the escape of the gases of putrefaction. Such burials were also found by Taylor here and at Tell el-Lahm¹, and are known elsewhere in Babylonia. In them the bodies had practically disappeared, but they yielded an unusual quantity of agate and other stone and also blue composition beads, but no pottery. They would seem then to belong to a period different from that of the larnax-burials, and probably earlier². Cuneiform tablets of the unbaked variety were found in considerable number (but in fragments) at "A," one being a large fragment of the time of the Third Dynasty, probably containing laws, which is now exhibited in the British Museum (No. 113915).

Such are the chief results of the work of 1919 at Ur. In order to preserve the continuity of the Museum's work at Shahrein, so successfully begun by Capt. Thompson, I also dug there, but with an aim different from his. He had, following his plan, sunk pits there in order to ascertain the stratification of the mounds and fix the date of the remarkable painted pottery, already described in my article on Tell el-'Obeid, which is specially characteristic of Shahrein, and is identical with that found by Pézard at Bander Bushir, and closely related to that of de Morgan's "second style" from Tepé Musyān and Susa³, as well as to that discovered by Herzfeld at Samarra. The publication of Thompson's results and his reasons for accepting the prehistoric date of this pottery will be found in his article in *Archaeologia*, already referred to, which had of course not appeared when I dug. Until his results had been published and those parts decided on which further information would be desirable, it seemed to me better to suspend operations of this kind and, instead, to excavate actual buildings, if any remained, of the ancient Eridu, belonging to one particular stratum.

The main characteristics of the mounds of Shahrein are known from the reports of Taylor and Thompson. The latter made a plane-table survey of them to replace Taylor's plan, which left much to be desired. I found Thompson's plan⁴ most accurate and useful. Fig. 6 is a reproduction of a section of it with my own finds entered by me⁵. Finding traces of buildings on the south side of a small sandy ravine which represents the ancient way leading out by the east gate of the city I excavated them in the short time at my disposal. Five house-complexes with two streets (Pl. XXXVI, 3), one of them a blind alley, came to light. The rooms (see my plans in Fig. 6) were built of (usually rectangular) crude bricks, faced

¹ *J.R.A.S.*, xv (1855), 414, 415.

² See THOMPSON, *Archaeologia*, loc. cit., 112 ff. on evidence as to date of this type of burial.

³ *Mém. Délég. Perse*, 1912, 1914.

⁴ *Archaeologia*, loc. cit., 104.

⁵ *Proc. Soc. Ant.*, Dec. 1919, Fig. 15.



1. The stone East Bastion, Eridu.



2. A house at Eridu:
stone architectural fragment
in foreground.



3. Street with stuccoed house-walls, Eridu.
Ziggurat in background.



4. Alcove in house, Eridu;
showing wall-painting.

ERIDU.

with a hard white stucco, sometimes painted with alternate stripes of red and white, each about three inches broad. Many wall-niches and "panelled" walls were found; and in house V (Pl. XXXVI, 4) Mr Newton thinks he has observed traces of windows. I endeavoured to protect one painted wall-niche by means of a wooden penthouse and door, but it is not probable that it has survived since 1919 the depredations of the wood-hunting desert Arab! The few antiquities discovered, consisting of pottery vases, wall-cones of the type found by Loftus at Warka¹, and spindle-whorls, besides stone architectural fragments (Pl. XXXVI, 2) and occasional scraps of gold foil and copper nails with heads overlaid with gold, such as had formerly also been found by Taylor, were all early; and Bur-Sin I built a brick platform above the ruins of one of the houses, so that they must be older than his time (2200 B.C.). The walls were often six to seven feet in height (Pl. XXXVI, 2 and 3).

The stone bastions of Eridu also attracted my attention as specially worthy of preliminary investigation. They are a remarkable feature in Babylonia, but the stone of which they



Fig. 6. Plan of the S.E. region of Eridu, shewing excavations.

are composed is obtainable not so far away, being a rough gypsum rock* from a desert ridge a few miles off. I cleared one bastion by the S.E. gate (Pl. XXXVI, 1). It and the walls near by are built of large rough stones, often three or four feet across, piled up in a chaotic mass that on a small scale recalls (from a distance) the walls of Tiryns. Brick bastions also exist,

¹ *Researches in Chaldea*, 147, 148. (Cf. *Journal*, VIII, 244.)

² Identified as such by Mr W. Campbell Smith, of the British Museum (Natural History).

one on the south face having been excavated by Taylor¹. Thompson and I cleared it again from the masses of sand that encumbered it, and Mr Thompson has described it². It is in two parts, the older of red burnt plano-convex bricks of Sumerian pre-Sargonic type, the other of rectangular burnt bricks of the Third Dynasty of Ur(?). Among these were some with an impressed mark of two crescents, back to back, also found by Taylor and Thompson at Ur. In size and shape they much resemble some of Shulgi which I found at el-'Obeid. The design of the two crescents may, I would suggest, be the origin of the name *Abu Shahrein* ("Father of Two Crescents"), unless, as it is possible, the name refers to the crescent-shaped pottery sickles commonly found on the site (see below). The variant *Abu Shuhur* ("Father of Crescents") occurs.

There is a good deal of stone lying about at Shahrein which came from farther afield than the rough local blocks of which the walls are built: on the mound above the houses I excavated still lie a great fragment of a prismatic block of basalt³ of the same kind as those of the Giant's Causeway, which must have been brought from a volcanic region such as that of Diarbekr or from somewhere in central Arabia, and granite fragments that may have come from the further Māgan (Sinai or the western desert of Egypt?). I have already referred to these in my last paper⁴. Microscopic examination of fragments of them might reveal something as to their original home. They were brought for the purposes of sculpture and architectonic ornament by the early kings by sea and river from Māgan and other distant lands, and the subject of this early voyaging in search of the hard stone so valuable in Mesopotamia, which had none, is of intense interest. Everywhere too at Shahrein are found fragments of vases of aragonite, which may well have come from the western Egyptian desert⁵.

I made a further collection of the prehistoric pottery, drab ware votive sickles (Pl. XXXVII, 1), cones of pottery and fine red sandstone, fragments of this sandstone and other stones for inlay, flint and obsidian flakes, etc., which as at el-'Obeid strew the desert on a "fan" of detritus that spreads out on three sides at the foot of the mound. I have usually supposed

¹ *J.R.A.S.*, xv (1855), 409.

² *Archaeologia*, loc. cit., 117; Fig. 7.

³ Illustrated by Thompson, *Archaeologia*, loc. cit., Pl. V, E.

⁴ *Journal*, VIII (1922), 256.

⁵ Mr Woolley has this year found at Ur fragments of what are probably imported Egyptian cylindrical and other vases of aragonite, dating from the time of the Old Kingdom. At any rate the stone is often identical with the Egyptian, and the styles often closely resemble those of the 1st—IVth Dynasties. In the Ashmolean there is an aragonite cylindrical vase of the same early Egyptian type, found at Telloh, which bears marks of long use and has been broken and carefully mended with rivets anciently, as if it were a precious object. This certainly looks like an importation from Egypt. Other vases from Ur are more like the predynastic Egyptian in form; but these are more probably merely clumsy local imitations of Egyptian prototypes. These bear sometimes the names of kings such as Shulgi, who lived probably a thousand years after the time of the Egyptian First Dynasty. Other aragonite vases, not cylindrical or recognizably Egyptian in form, bear the name of Rimush, a probable contemporary of the Egyptian Sixth Dynasty (c. 2700 B.C.). The inscriptions on the vases of Rimush often contain references to the east or to Elam, and the vases were apparently sometimes booty from Susa. Now the aragonite of which they are made does not appear to be like that of most of the cylindrical vases, and it may be that it was a local stone found in Persia; the aragonite of which perhaps the vases with the famous trilingual inscriptions of Xerxes were made. Shulgi's aragonite, however, and that of most of the cylindrical vases, certainly looks Egyptian. In view of the divergence of date, is the resemblance of these vases to the Egyptian types to be regarded as merely a coincidence? It is hard to suppose so, and I am strongly inclined to believe that among these vases from Ur are many that were imported from Egypt in the time of the early Old Kingdom and were still used and imitated at the period of the Dynasty of Ur (c. 2300 B.C.).



1. Pottery sickles, cones and "nails."
Eridu, 1919.



2. Small objects of the prehistoric and
Sumerian periods: Eridu, 1919.
(Scale one-third).



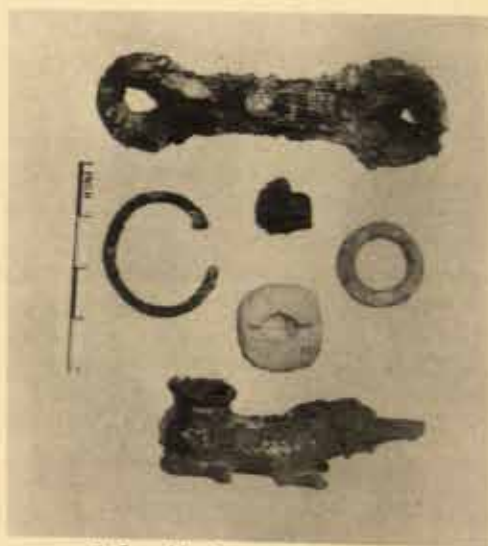
3. Head of dolerite statue,
Ur. Half life-size.
About 2500 B.C.



4. Foundation-tablet of the temple of
Ninsun at Ur; dedicated by
Ur-Nammu, about 2300 B.C.
Found in 1919.



5. Cuneiform tablets containing wills
and lists of property: 7th cent. B.C.
Ur; 1919.



6. Iron bit; bronze armlet and
rings; bronze lion-lamp; and
pottery scarab-mould.
Late period. Ur.

that these things were washed out of the lower levels of the mound by the rains that in winter sweep torrents of water down from the heights of the *ziggurrat* through the sandy ravines that represent the chief arteries of the ancient town. Mr Thompson found such objects in his pits "as low as what I believe to be virgin soil," and from his work there is no doubt as to their pre-Sargonic date: Thompson even considers them to be pre-Sumerian. He adds: "they were also to be picked up in far greater quantity on the desert near the south and south-east parts of the mound. Of this, the pottery, at any rate, may have come from a necropolis, or it may have been washed down from the mound; either is possible, as in the first case we can find a parallel at Susa; in the second we should have to explain the presence of (historic?) alabaster bowls with the pottery." I do not myself see the validity of this last objection, as if these objects were washed out of the *tell* by rains, it would be natural to find things of all periods mixed upon the surface, and that is very much what we do find: e.g., copper gold-plated nails (I found one peg of solid gold) which should be of Sumerian days, perhaps even as late as the time of Bur-Sin, besides the alabaster (aragonite) fragments to which Thompson refers. Hitherto I have regarded the "wash-out" theory as the more probable, both at Shahrein and at el-'Obeid, as stated in *Journal*, VIII, 243. But there are certainly strong arguments against it at both places. On the north sides of both Shahrein and el-'Obeid and on the east side of el-'Obeid the pottery-covered "fan" does not exist, and at Shahrein there is little to be found on the west. One would expect a true fan "of detritus" to exist equally all round the main mound. I had supposed that at Shahrein it did not exist on the north because all the little "wadis" that cut through the mounds from the *ziggurrat* to the circumference run southward: the *ziggurrat* (and highest point) is so close to the north face that there was no room there for "wash-out" wadis. At el-'Obeid there is the serious objection of the smallness of the mound. If the whole of the "fan" that lies on the surface to the south and west was washed out the mound must have been much bigger in ancient days, and this does not seem very likely, as it just covers the one building of importance. Mr Thompson's other explanation, that of prehistoric cemeteries lying to the south of both mounds, gains in probability the more one studies the matter, though we may possibly have to deal with settlements of the living, either instead or as well. Further exploration of el-'Obeid at any rate, if not at Shahrein, should reveal much in this connexion; hitherto the "fan" at both places has not been excavated, but only the surface-finds gathered.

Among my surface-finds of 1919 from Abu Shahrein besides the gold already mentioned are specially notable the little figure of a man in drab pottery, worn and indurated with the action of sun and wind as it has lain probably for centuries on the desert-surface (Fig. 7; Pl. XXXVII, 2, B. M. No. 115357), with his bird-face and attempt at a turban(?); and the perforated fragment of a pendant or label of smoky quartz (Fig. 8; Pl. XXXVII, 2, B. M. No. 115358), with the incised figure of a lion walking beneath an object which looks like one of those palm-sprigs(?) that so often decorate the scarabs of the Hyksos period in Egypt. The cross-hatching on the body also reminds one of the treatment of the figure on Hyksos scarabs. However this may be, we have otherwise no indication of date in either of these objects, and it may well be that the little lion from Shahrein is much older than any Hyksos scarab, and the pottery figure certainly looks prehistoric, as the pottery and flints are. They date, as at el-'Obeid, Bander Bushir¹, and other places, from the chalcolithic age, when metal was just coming into use.

¹ PÉZARD, *Mém. Délég. Perse*, xv (1914).

Shahreïn is a site of extraordinary importance for the study of the early stage of civilization in Mesopotamia. But as a subject for excavation it is a very different "proposition" from Ur. Instead of being close to the railway and the comparative civilization of Ur junction and Nasiriyah, with the result that transport, food, and water are easily obtainable, it lies fourteen miles away from Ur in a waterless desert: I had to bring every drop of



Fig. 7. Drab pottery figure of a man. Eridu.
Natural size.



Fig. 8. Part of a plaque of smoky quartz, with incised design of lion passant. Eridu. Natural size.

drinking-water from Ur in fantasses carried by a daily train of three or four Ford cars. Instead of the ordinary sandy earth of Ur, Shahreïn presents the problem of torrents of fine shifting sand, a despair to the excavator. Yet it is a most interesting site, and it is to be hoped that some day it will be completely excavated, in spite of the great expense that will necessarily be involved.

The most curious fact about Shahreïn is that neither Taylor, Thompson, nor I found a single inscribed tablet or fragment of one there. Thompson found a piece of an inscribed aragonite ceremonial macehead of the Sargonic period¹, and bricks of Bur-Sin I, from his splendid *ziggurat*-wall, commemorating his devotion to "his beloved Apsu" (the sacred Abyss of the god Enki, a hidden spring (?) of fresh water that perhaps had something to do with the freshwater lake in the midst of which Eridu probably stood; see below), are common enough: but not a single tablet has yet been found. There is also nothing of later date than about 2000 B.C. in the main mounds². All later objects from Shahreïn came from the surrounding mounds, the Sulébiyah to the south and others to the north and west³. There are graves of later periods, as at Ur. Was the ancient Eridu, the *ziggurat*, temple, and Sumerian town, uninhabited after the end of the third millennium B.C., except by a few priests and acolytes? Did it survive merely as a sort of Babylonian "cathedral close," with perhaps a later town, not yet discovered, near by, to which the later burials belong? Was this as yet hypothetical Eridu the town to which later records refer as existing and inhabited? Or is Eridu mentioned later merely on account of its holiness and ancient state?

¹ *Archæologia*, loc. cit., Fig. 4, 13; B. M. No. 115356.

² The last king of whom record has been found there is Nur-Immer (or Nur-Adad), of a dynasty of Larsam, who reigned about 2100 B.C. (THOMPSON, *Archæologia*, loc. cit., 108).

³ I here absolutely confirm what Thompson says *loc. cit.*, 110. Really late things such as coins and fragments of "Arab" glass bangles are only found on the peripheral mounds outside, which may represent the classical Terebon, the identification of which with Eridu Thompson seems to be inclined to credit (*loc. cit.*, 126).

Was it never in later times much more than a shrine to which people were brought to be buried as dead Shiahhs are now carried for burial to Nejef and Kerbelā? This is one of the *quaestiones Tereдонicae* (if the classical Tereдон is Eridu) that remain to be solved. One thing is clear, that, as Thompson says, Eridu can hardly have stood on the actual shore of the Persian Gulf, however far inland the sea may have come in early days. Not only does the ancient aquatic fauna of the place, of which we find the remains, shew this, but geological considerations also make it improbable. In early times Eridu may have been situated at the end of a winding backwater of the gulf (very like that which at the present time runs up inland behind Basrah in the direction of Shaiba), into which fell a branch of the Euphrates, or a canal leading from the Euphrates near Ur. In the brackish water of such a backwater freshwater shell-fish could live. Shahrein actually looks as if it had stood in the centre of a marshy lake (connected in some way with the freshwater "Apsu" of Eridu?)¹, out of which it rose an island like Ely in the fens: a lake like the modern Hammar on a very small scale, perhaps originally at the end of the backwater, and connected with the Euphrates either directly or by canals and so with the sea: for Eridu, though it stood not on what we call "the sea," was in very early days undoubtedly a seaport. This lake we may suppose gradually dried up as its canals ceased to be used, and Eridu was finally abandoned to the desert.

ADDITIONAL NOTE ON EL-'OBEID.

The article on el-'Obeid that appeared in the *Journal* in October, 1922, was written over a year ago. Since then further consideration has suggested several modifications of views there expressed, and the work of Mr Woolley and his colleagues at Ur has resulted in the presentment of new points of view. The theory that the surface finds at el-'Obeid were not necessarily washed out of the mound, as I assumed in my article, but that both there and at Shahrein they are due to a prehistoric cemetery (as suggested alternatively by Mr R. C. Thompson) or to a settlement (Mr Woolley's suggestion), is deserving of the highest consideration, and may well prove the correct one. Further excavation alone will shew.

Mr Thompson is of opinion that it is more probable that the copper lions of 'Obeid were not, as I originally thought possible, the supports of a throne (a *gadi*, as my Indians called it), but were placed in pairs opposite one another along the approach to the temple of Damkina, if this is what el-'Obeid was. If so, the arrangement had been very much mixed up since they were erected, as the four life-size lion-heads were found in a line, and the others were found thrown in (apparently) on the top of them. The theory of pairs is however confirmed by a sixth head, parallel to the smaller head with one eye illustrated in *Journal*, 1922, Pl. XXXIII, 2.

It has been suggested to me that the sagging or deformation of the heads (very noticeable in the two smaller lion-heads and one of the panther- or cat-heads) is due to the pressure of the superincumbent earth. But if this were the cause the bitumen interior of the heads would not sag or bend in also: it would have broken and crumbled. On the contrary, it is whole and bears all the appearance of having taken its present form when hot, i.e., when poured into the cast heads. The view that the heads were cast was originally

¹ Enki was the god of the *Apsu* or Abyss, the primeval waters beneath the earth, the origin of freshwater springs, wells, and rivers. Is it impossible that the making of his "beloved" spring Apsu at Eridu was connected with the fact of the freshwater lake, regarded as an appearance of the waters of the Abyss?

suggested by practical metal-workers. On the other hand, the foreparts of the lions, the bodies of the stags in the Imgig-relief, etc., were undoubtedly hammered.

In the former article I omitted to mention in the text that the wall of the building of el-'Obeid is not entirely composed of plano-convex bricks. The wall at C in the sketch-plan (*Journal*, VIII, 245, Fig. 2) is marked "plain wall," and is composed of rectangular bricks, perhaps of later date (Pl. XXXVIII, 2). I have spoken of the building as being like a *ziggurrat*, but it is probable that when completely excavated it will prove eventually to be not entirely rectangular in form. Certainly the pre-Sargonic building is not completely rectangular, but L-shaped.

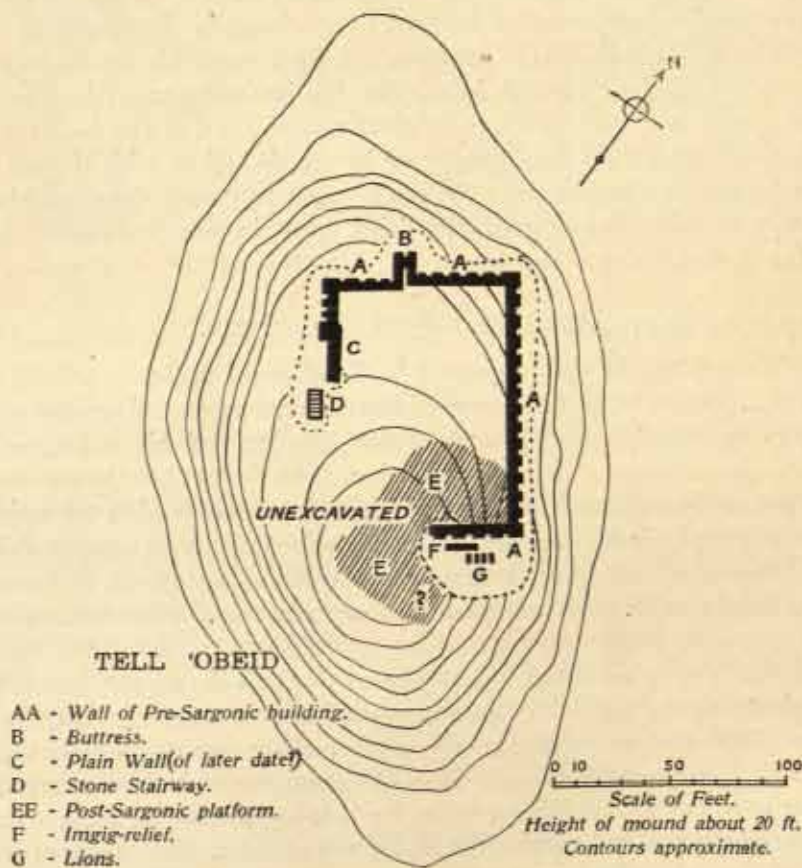


Fig. 9. Sketch-plan of Tell el-'Obeid.

On the plan the cardinal points were wrongly placed. The plan is here re-published, corrected (Fig. 9). This is a sketch-plan, intended merely to illustrate the description in the text. The final plan will be drawn by Mr Newton.

Mr Smith tells me he has heard the place called Tell el-'Abd, "The Mound of the Slave," as well as Tell el-'Obeid.

The discovery of a headless statue of Entemena of Lagash by Mr Woolley near the *ziggurrat* at Ur has perhaps confirmed my idea that a Lagashite dominion over Ur is indicated by the copper relief of Imgig, the lion-headed eagle of Ningirsu, found by me at el-'Obeid. Of course however the statue may equally well have been brought to Ur as a



1. The Stone Staircase at El-'Obeid.



2. El-'Obeid: the wall of rectangular bricks



3. El-'Obeid: general view from the North.

TELL EL-'OBEID.

trophy from Lagash. The dedicator of the statue was originally thought to have been Enannatum II (*Journal*, ix (1923), 119), but it is now known that he was in reality Entemena, his predecessor.

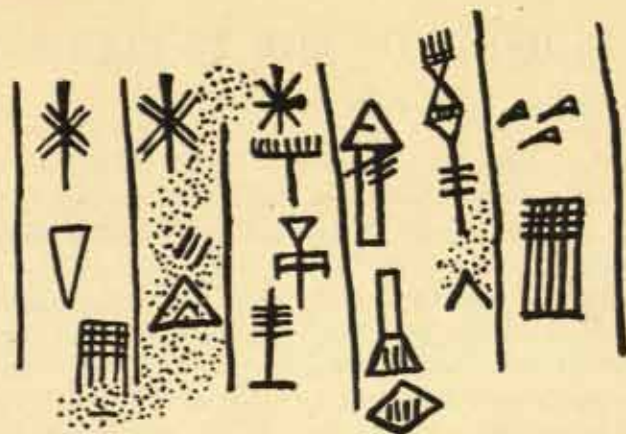



Fig. 10. Archaic Inscription of Kur-lil: el-'Obeid. (Corrected copy.)



CORRIGENDA in "The Discoveries at el-'Obeid," *Journal*, VIII, 241 ff.

Owing to difficulties of proof-correction three errata crept into this article :

P. 249, n. 1. For *Accab* read *Accad*.

P. 250, Fig. 3. The sign  has been omitted at the bottom of col. 4 from the left. The block is corrected above (Fig. 10).

Ibid., l. 23. For 3600 read 3000 B.C.

In my article on "The Egyptian Transliteration of Hittite Names," *ibid.*, p. 222, in the name of the Hittite warrior Zauazasa the sign  has been misprinted  (as often happens!).

THE CHRONOLOGY OF THE TWELFTH DYNASTY

By G. H. WHEELER

THE standard work on Egyptian Chronology is Dr Eduard Meyer's dissertation in the *Transactions of the Berlin Academy* for 1904¹. In spite of the large number of names and regnal years of kings which have been preserved, there is no hope that we shall ever be able to construct an Egyptian chronology by a method of dead reckoning from these data. It is likely that there will always be gaps in our records and, although, if this were the only danger, suitable allowance could be made for it, the opposite danger, that of reckoning the same year twice or even several times over, would be much more difficult to obviate. When reigns overlapped, as they frequently did, it is only occasionally that we have the means for establishing a synchronism. Moreover, at times when the royal authority was weak, there were apt to be more persons than one to assume the style of king, and the names of such persons, whether occurring on contemporary monuments, or in lists of kings, can only create confusion in any chronological scheme into which they enter. Our only sure guide is the Egyptian calendar, because its dates can be readily and confidently converted into dates of our own Julian calendar. Each of these calendars has a year of 365 days and the difference between them arises regularly every four years in consequence of the intercalation of a bissextile day in the Julian calendar without any corresponding intercalation in the Egyptian calendar. If we had a number of records of eclipses of the sun and similar phenomena in dates of the Egyptian calendar, we should easily obtain a fixed chronology. In the absence of such records, we are thrown back on the records of new moons. By the help of new moons recorded for the 23rd and 24th years of Tuthmosis III, Dr Meyer was able to establish a fixed chronology for the reign of that king². Unfortunately our data for the regnal years of the other kings of the Eighteenth Dynasty are too imperfect for the chronology thus established to be extended to the whole of the dynasty.

For the Twelfth Dynasty, on the other hand, our information is remarkably full and it is to be regretted that Dr Meyer failed to identify the king for whose 30th and 31st years we have the record of 12 new moons³. One reason for Dr Meyer's failure may be found in the fact that he rejected the date given by Censorinus for the commencement of the so-called Sothic period. Censorinus' words are (*de die natali*, cap. XVIII):

ad Aegyptiorum annum magnum luna non pertinet, quem graece *κυνιαόν*, latine canicularem vocamus, propterea quod initium illius sumitur, cum primo die ejus mensis quem vocant Aegyptii *Θωνθι* caniculae sidus exoritur. Nam eorum annus civilis solos habet dies CCCLXV sine ullo intercalari, itaque quadriennium apud eos uno circiter die minus est quam naturale quadriennium, eoque fit ut anno MCCCCLXI ad idem revolvatur principium. hic annus etiam *ήλιακός* a quibusdam dicitur et ab aliis *ό θεού ενιαντός*..... (cap. XXI) sed horum (annorum) initia semper a primo die mensis ejus sumuntur cui apud Aegyptios nomen est Thouth quique hoc anno fuit a.d. VII Kal. Jul., cum abhinc annos centum Imperatore Antonino Pio iterum Bruttio Praesente consulibus idem dies fuerit a.d. XIII

¹ E. MEYER, *Ägyptische Chronologie*, 1904.

² MEYER, *op. cit.*, 49 f.

³ MEYER, *op. cit.*, 52 ff.

Kal. Aug., quo tempore solet Canicula in Aegypto facere exortum. quare scire licet anni illius magni qui ut supra dictum est et solaris et canicularis et dei annus vocatur nunc agi vertentem annum centesimum¹.

The Emperor Antoninus Pius entered upon his second consulship in January, 139, and if the Sothis festival was held on the 1st Thoth in the years 139, 140, 141 and 142, it must in 139 have corresponded with the 20th July and in the other three years, owing to the intercalation of a bissextile day in February, 140, with the 19th July. Since the 1st Thoth coincided with the 19th July in 142, it fell 96 years later, that is to say, in 238, on the 25th June (a.d. vii Kal. Jul.) because the Egyptian calendar gained one day every four years over the Julian calendar, or 24 days in 96 years. Dr Meyer, however, set aside Censorinus' date for the commencement of the Sothic period and substituted the year 140 for the year 139 upon the seemingly gratuitous assumption that Censorinus had been guilty of a gross blunder. Dr Meyer was able to bring to the support of his opinion some rather precarious arguments of Dr Unger². Dr Unger's later views on the Sothic period differed considerably from Dr Meyer's, for he held that the Sothis festival was always kept on the 19th July until about 142 B.C. and that afterwards it was held on the 19th July in the last three years of each quadriennium and on the 20th July in the first year³. Dr Unger's theory was partly based upon astronomical data which appear to be irrelevant and there is no reason to doubt that Dr Meyer was right in rejecting the idea that a change occurred about 142 B.C.

As between Censorinus and Dr Meyer, it is common ground that the Sothis festival, after being held during four years on a particular date of the Egyptian calendar, passed on in the fifth year to the next date of that calendar. The quadriennium during which the Sothis festival was held on the same date of the Egyptian calendar began, according to Censorinus, one year earlier than Dr Meyer was prepared to allow. It results from this difference that, according to Dr Meyer, the Sothis festival was always held on the 19th July, but according to Censorinus, on the 20th July in the first year of the quadriennium and on the 19th July in the other three years⁴. On this point Censorinus is in the position of a contemporary witness. Dr Meyer's theory implies that the Sothis festival was still in Censorinus' own time always held on the 19th July. It rested, therefore, with Dr Meyer to explain, if he could, how it happened that although in Censorinus' own time the Sothis festival always fell on the 19th July, Censorinus himself should have entertained the idea that it sometimes fell on the 20th.

¹ The manuscript reading was a.d. xii Kal. Aug. The correction of xii to xiii, which was first made by Scaliger, would be necessary if only to elucidate Censorinus' arithmetic. Apart from Censorinus, however, there is plenty of ancient evidence to show that the 1st Thoth corresponded with the 20th July in A.D. 139 (MEYER, *op. cit.*, 24, citing Brandes, *Abh. zur Geschichte des Orients*, 123 ff.).

² MEYER, *op. cit.*, 28. See also p. 22, note 2, where Dr Meyer cites the 1st instead of the 2nd edition of the *Handbuch der klassischen Altertums-Wissenschaft*.

³ G. F. UNGER in IWAN VON MÜLLER'S *Handbuch der klassischen Altertums-Wissenschaft*, I, 777 Ann. (2^{te} Auflage, 1892). This note seems to bring Dr Unger into line with Censorinus and to involve a retraction of his previous theory, though Dr Meyer revived it.

⁴ There was a bissextile day in February 140 A.D. so that there was an interval of 366 days between the 20th July, 139, and the 20th July, 140. As the Egyptian year had 365 days, the 1st Thoth, which fell on the 20th July in 139, fell on the 19th July in 140. The 1st Thoth still corresponded with the 19th July in 143, but in that year, according to Censorinus, the Sothis festival passed on to the 2nd Thoth = 20th July. In 144, which was a bissextile year, the 2nd Thoth (and with it the Sothis festival) fell on the 19th July and remained on that date in 145 and 146.

Dr Meyer gave, as his reason for rejecting the testimony of Censorinus, the fact that the Decree of Canopus, an official and absolutely authentic document, states that in the 9th year of Ptolemy Euergetes (= 22nd Oct., 239, to 21st Oct., 238 B.C.) the Sothis festival fell on the 1st Pauni (= 19th July, 238 B.C.); but in 238 B.C. this festival must have fallen on the 2nd Pauni (= 20th July), if Censorinus is correct in stating that in 139 A.D. the Sothis festival fell on the 20th July (= 1st Thoth)¹. Dr Meyer's statement is accurate, so far as it goes, but it only tells half the story. It is true that the 1st Pauni in 9 Euergetes fell on the 19th July, 238 B.C., but it is also true that the 1st Pauni in 9 Euergetes fell on the 19th July, 239 B.C. Euergetes had two methods of computing his regnal years. By one method, the method which Dr Meyer had in view, the 9th year began on the 1st Thoth (= 22nd Oct., 239 B.C.), so that the 1st Pauni would fall on the 19th July, 238 B.C. By the other method, the 9th year began in or about April, 239 B.C., so that the 1st Pauni would fall on the 19th July, 239 B.C.² Dates in the months of Thoth, Paophi, Athyr, Choiak and Tybi of 9 Euergetes can be definitely identified with dates between October, 239 B.C., and March, 238 B.C., but dates in other Egyptian months may belong either to March—Oct., 239 B.C., or to March—Oct., 238 B.C. The Decree of Canopus is dated 17 Tybi, 9 Euergetes, and accordingly it belongs to the 7th March, 238 B.C. The Decree mentions Mesore and the 1st Pauni, both in the 9th year³. By Mesore in the 9th year the Decree might mean either Sept.—Oct., 239 B.C., or Sept.—Oct., 238 B.C., and we can only decide which is meant if the tense of the verb shows whether Mesore is past or future. It happens that the tense is future (*τοὺς προσκαταγησομένους ἕως μηνὸς Μεσορῆ τοῦ ἐν τῷ ἐνάτῳ ἔτει*), so we can infer that Sept.—Oct., 238 B.C. is meant. In the case of the 1st Pauni, on the contrary, that date is referred to as already past (*τῇ νομηνίᾳ τοῦ Παῦνι ἐν ᾗ καὶ ἐξ ἀρχῆς ἤχθη ἐν τῷ ἐνάτῳ ἔτει*). Had the future been intended, *ἀχθήσεται* must have been used instead of *ἤχθη*⁴. It is clear, therefore, that the 1st Pauni in the 9th year of Euergetes mentioned in the Decree of Canopus means the 19th July, 239 B.C., and this date is consistent with the testimony of Censorinus.

Having shown that Censorinus' statement is consistent with a document 475 years earlier than his own time, I will now compare it with a document more than 2000 years older than Censorinus. Among the Twelfth Dynasty papyri discovered at Kahun is a copy of a letter written in the 7th year of Sesostri III announcing that the Sothis festival would fall on the 16th day of the 8th month⁵. Since the festival was held for the first time on the 1st

¹ MEYER, *op. cit.*, 23, 24, 26, 28. Between 2 Pauni and 1 Thoth there are 94 days and it took the Sothis festival $94 \times 4 = 376$ years to advance 94 days. 376 years is the interval between 20 July, 138 B.C., and 20 July, 139 A.D.

² J. G. SMYLY in *Hermathena*, xiv (1907), 114. It is possible that in 1904 Dr Meyer had no means of ascertaining the fact that Euergetes had two methods of computing his regnal years. The publication of the Hibeh Papyri in 1906 first made the necessary data available.

³ Mesore in line 27 of the Decree and 1st Pauni in lines 37 and 39. For the Decree of Canopus I have used the excellent edition given by M. L. STRACK in his *Dynastie der Ptolemäer* (1897), 227 ff.

⁴ The Decree of Canopus incurs the reproach of inconsistency by using two methods of computing regnal years in the same document. The dating of events and documents by regnal years is admittedly inconvenient and inconsistencies in practice occur frequently even in kingdoms where one method only is in vogue. Apart from the two methods actually employed in the Decree of Canopus, there is an allusion in line 36, *τῇ ἡμέρᾳ ἐν ᾗ ἐπιτελεῖται τὸ ἄστρον τὸ τῆς Ἰασιος ἢ νομίζεται νέον ἔτος εἶναι*, to a third method by which New Year's Day coincided with the Sothis Festival; compare line 45 where New Year's Day (*νέον ἔτος*) corresponds with the 1st Thoth.

⁵ A very legible reproduction of this text is given in G. MÜLLER, *Hieratische Lesestücke*, Heft I.

of the 1st month in 139 A.D. and since it took 1460 years for the festival to pass through the Egyptian calendar at the rate of one day every four years, we are taken back to the 20th July, 1322 B.C., for the previous occasion on which the festival fell for the first time on the 1st day of the 1st month. Between the 16th day of the 8th month and the 1st day of the 1st month are 140 days. Multiplied by 4 this number gives 560 as the number of years which elapsed between the day on which the festival was held for the first time on the 16th of the 8th month and the 20th July, 1322 B.C. Consequently, if (as seems probable) the announcement was made in view of the passage of the festival from the 15th to the 16th day of the 8th month, we must identify the 7th year of Sesostri III with the year 1882 B.C. His first year, therefore, was 1888 B.C. There is contemporary evidence that the 1st year of Sesostri III was preceded immediately by the 19th year of Sesostri II, so that the 1st year of Sesostri II was 1907 B.C.¹ There is contemporary evidence that the 1st year of Sesostri II coincided with the 33rd year of Amenemmes II, so that the 31st year of Amenemmes II was 1909 B.C.² Dr Meyer drew attention to some accounts of the 30th and 31st years of an unnamed king. They belong to the same find as that to which we owe the announcement of the 7th year of Sesostri III. They are the accounts of six officials, and each account covers a period of one month:

	day	month	year		day	month	year
(1)	from 26	10	30	to	25	11	30;
(2)	from 25	12	30	to	20	1	31;
(3)	from 20	2	31	to	19	3	31;
(4)	from 19	4	31	to	18	5	31;
(5)	from 18	6	31	to	17	7	31;
(6)	from 17	8	31	to	16	9	31.

It will be observed that these months do not correspond with the Egyptian calendar, and a little reflection will show that they are lunar months of 29 or 30 days each. Dr Meyer did not interpret the dates quite accurately, because he took one of the months to run from 25. 12. 30 to 20. 1. 31 inclusive, a period of 31 days: which is impossible. We must infer that the actual dates mentioned are common to the official who is going out of office and to his successor. We may also confidently assume that the day on which the transfer took place was the day on which the new moon festival was observed, for in such a connection no other day would be at all probable. Thus the 12 dates given by our document may fairly be taken to be new moons. It is unlikely that the date for celebrating the new moon would be fixed by a separate astronomical observation every month and indeed the dates themselves indicate that they were obtained by allowing 30 and 29 days alternately to the months and by substituting a 30 day for a 29 day month, as occasion arose. The occasion would arise at the end of every 32 months³. Dr Meyer, on the assumption that the 30th and 31st years of Sesostri III were intended, had calculations made of the new moons of the years 1859 to 1848 B.C. and he found that the new moons of 1859 B.C. would suit the new moons of the 31st year of the document, but that the 31st year of Sesostri III could not be earlier than 1857 B.C. upon his view that a Sothic period began in 140 A.D. The true date is 1858 B.C. and this is also unsuitable. Dr Meyer argued that the document may

¹ MEYER, *op. cit.*, 55.

² MEYER, *op. cit.*, 57. Dr Meyer merely mentioned the fact that 33 Amenemmes II = 1 Sesostri II without any definite reference to the document or documents on which he relied. No doubt, he derived the statement from Griffith, or from Borchardt.

³ 32 months of an average length of $29\frac{1}{2}$ days = 944 days; 32 lunations of 29.53059 days = 944.97888 days.

belong to the 30th and 31st year of another king and he instanced Amenemmes II, but did not pursue this line of enquiry¹. We have seen that the 31st year of Amenemmes II corresponds to 1909 B.C., that is, exactly 50 years earlier than 1859 B.C. Inasmuch as 50 Egyptian years amount to $365 \times 50 = 18250$ days and 618 lunations amount to $618 \times 29.53059 = 18249.90462$ days, it is clear that Egyptian dates of new moons that suit 1859 B.C. are likely also to suit 1909 B.C.

The following table gives the recorded new moons with the hours after which each new moon would become visible in 1909 B.C. calculated upon the basis of Dr Meyer's table for 1859 B.C.²:

NEW MOONS IN 1909 B.C.

Date given by the Papyrus			Hour after which the new moon became visible		
day	month	year	day	month	year
20	2	31	9 a.m. on	19	2 31
19	3	31	2 a.m. on	19	3 31
19	4	31	midday on	18	4 31
18	5	31	9 p.m. on	17	5 31
18	6	31	4 a.m. on	17	6 31
17	7	31	midday on	16	7 31
17	8	31	7 p.m. on	15	8 31
16	9	31	4 a.m. on	15	9 31

The reader can judge for himself how accurately these dates correspond; and when he realizes that a similar correspondence of dates cannot recur except at intervals of 25 years, he will be able to appreciate the strength of the case for identifying the 31st year of Amenemmes II with the year 1909 B.C. When Dr Meyer wrote "Nun muss sich innerhalb der 19jährigen Mondperiode immer ein Jahr finden, welches ungefähr passt," he was obviously thinking, not of the Egyptian, but of the Julian, calendar³. Had he realized more clearly that it was Egyptian, rather than Julian, dates that he had to consider, he would have chosen a 25 year instead of a 19 year cycle and would easily have hit upon the truth.

Profitable as it may be to be able to establish precise dates for the Twelfth Dynasty, it is still more important to have proved that the Egyptian calendar remained unchanged during the long period which separated Amenemmes II from Censorinus and that the Sothis festival maintained its quadriennia regularly throughout that period. The hypothesis that a triennium was sometimes substituted for a quadriennium has always been devoid of plausibility, but it is at the base of the theory of Dr Unger which is referred to above and it has been maintained by many other scholars of repute⁴. The primary objection to this hypothesis may easily be stated. A religious festival in Egypt, as elsewhere, was held upon a particular date because that date had become established by custom, or precedent. A custom that the date should be moved onward every four years might easily become established, but if that custom had to be varied at long and irregular intervals in deference to the requirements of scientific astronomy, it would cease to be a custom.

¹ MEYER, *op. cit.*, 54.

² MEYER, *op. cit.*, 54. When Dr Meyer gives Jan. 17.8 as the time of the "Neulicht," he means $\frac{8}{10}$ of a day later than midday on Jan. 17: that is to say, 7.10 A.M. on Jan. 18. Jan. 18 in 1859 A.C. corresponds with the 19th day of the 2nd Egyptian month. Consequently the "Neulicht" 50 years earlier would be at about 9 A.M. on the 19th of the 2nd month, as given in the Table.

³ MEYER, *op. cit.*, 54.

⁴ UNGER in *Handbuch der klassischen Altertums-Wissenschaft* (2^{te} Auflage, 1892), I, 777 Anm. See also L. BORCHARDT, *Die Annalen und die zeitliche Festlegung des Alten Reiches* (1917).

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By F. LL. GRIFFITH, M.A.

THE Centenary-year of CHAMPOLLION's decipherment is itself marked as an *annus mirabilis* for Egyptologists by its disclosure of an almost intact burial of a Pharaoh with all his rich funerary equipment about him. It is not a new culture or a new art that is revealed thereby, like the Cretan or Hittite cultures in recent years, nor a new period of history like the early dynasties of Egypt recovered from the cemetery of Abydos and elsewhere within the last quarter of a century. The tomb with its furniture just illustrates a single moment in a period already better known than most in Egyptian history and its real value seems to lie in its lavish completeness and in its dramatic appeal. For years past interest in archaeology has been growing in all quarters of the globe, and now the discovery of the tomb of Tutankhamun has been the occasion of an extraordinary outburst of enthusiasm amongst all classes, and in the Press of all countries. It is to be earnestly hoped that a permanent effect will ensue in increased attention to the early history of the human race and consequent support for scientific research. Whether this be so or no, it is certain that the tomb of Tutankhamun will be the object of minute care and painstaking labour in order that the whole of its treasure may be secured to posterity in originals, in copies and in descriptions. The death of Lord CARNARVON in the midst of his triumph will ever remain a cloud of sorrow in the brilliant record of this discovery.

While apparently the entire Press of the world has taken part in making known and commenting on the discoveries, *The Times* has had special privileges in publishing authoritative articles written on the spot by Lord CARNARVON, Howard CARTER, MACE, LUCAS and BURTON, and *The Illustrated London News* in this country may be particularly mentioned as giving excellent reproductions of many photographs. The series of photographs taken by Mr BURTON of the tomb and its treasures are now exhibited in the New York Metropolitan Museum (*Bulletin*, XVIII, 132).

Of specialist journals, the Italian *Aegyptus*, vol. IV, contains two articles by Professor CAPART, *Le nouveau Trésor découvert en Égypte*, written in Belgium (pp. 3-18), and *Au Tombeau de Toutankhamon*, written from Egypt in February 1923 (pp. 19-25), and others by GRIFFITH, *The Tomb of Tutankhamon* (brief summary of the find, pp. 26-28), and the editor, Professor CALDERINI, *Alcune illustrazioni della Tomba di Tutankhamon* (with photographs, pp. 29-30). The *Bulletin* of the Société archéologique d'Alexandrie (19, 172-186) contains an article by Dr BRECCIA, *Le Tombeau de Toutankhamon*, with plan. In *The Museum Journal* (Philadelphia), XIV, 19-20, *The Egyptian Expedition, Lord Carnarvon in Egypt*, Dr FISHER describes an early visit to the tomb; so also does FENAILLE in *Comptes Rendus de l'Acad. des Inscr.*, 1923, 78, and M. NAVILLE suggests that the tomb of Horemheb was originally destined for Tutankhamun, *ibid.*, 162-163. In *Ancient Egypt*, 1923, 32, *Notes and News*, the editor makes the suggestion that the contents of the tomb should be housed in a new building at Dêr el-Bahrî, rather than transported to Cairo. A portion of them is already exhibited on the upper floor of the Cairo Museum. CAPOVILLA in *Aegyptus*, IV, 207.

The celebration in Paris of the double centenary of the Société Asiatique and of CHAMPOLLION's first decipherment in July 1922 has received adequate record in a special publication, *Société Asiatique: les fêtes du Centenaire* (1922). It contains the speeches of M. SENART, President of the Society, and of the French and foreign delegates, and the text of addresses sent by foreign Academies and Universities. The most interesting for us is the speech of M. NAVILLE at the Sorbonne and those made at the inauguration of a bust of Champollion in the Egyptian Galleries of the Louvre. The principal speakers here were M. CONSTANT (Director of the National Museums), M. BÉNÉDITE, Conservator of the department of Egyptian antiquities, M. MONCEAUX, president of the Académie des Inscriptions et Belles-Lettres (who informed us that the prime object for which that Academy was founded was to see that suitable inscriptions in good Latin were produced for the architectural monuments of Louis XIV!), and M. CROISSET, Administrator of the Collège de France, and all had much that was interesting to say. The family of CHAMPOLLION was represented by the Comte d'AUTROCHE, great grandson of the decipherer, his cousin André CHAMPOLLION who hastened from America to take part in the war having fallen on the battlefield at Bois-le-Prêtre in March 1915, and André's son being a young boy at school in England.

On Sept. 22, the date of the famous *Lettre à Ducier* which was communicated originally to the Académie des Inscriptions a century before, M. Paul MONCEAUX, the President, discoursed to the Académie on CHAMPOLLION's discovery. This discourse and other communications on the same occasion are printed in *Comptes Rendus*, 1922, 336-342.

In Moscow the centenary of the decipherment was celebrated on August 17-20, when women as well as men read papers on papyri and antiquities, and plans were discussed for future work both as regards the preservation of Egyptian antiquities in museums and the publication of Egyptological literature. *Or. Lit.-Zeitung*, xxv, 526-7.

Sir Hercules READ's presidential address to the Society of Antiquaries of London at its anniversary meeting in April 1923 is entitled *International Archaeology*. In regard to Egypt, he notices the generous action of the Metropolitan Museum in giving prompt help to Lord CAERNARVON at the Tomb of Tutankhamûn; deplores the division of English archaeological forces and the absence of official encouragement; and gives a more reassuring view than is commonly held of the proposed change in the law governing excavations in Egypt which, if it should be passed, is by no means aimed by its originator at depriving the excavator of a fair share of the relics found. *Antiquaries Journal*, III, 201-214.

The popularisation of archaeology in England is provided for not only by frequent articles in the daily and weekly journals, but also by a remarkable serial now being issued in fortnightly parts called *Wonders of the Past*, edited by J. A. HAMMERTON: it forms a fine and very interesting collection of views and restorations of ancient cities, buildings, sculptures and antiquities from all parts of the world including Egypt, with explanatory text by experts. Illustrated articles on Egypt in the companion series *Peoples of all Nations* may also be referred to here. The Egyptological articles that have already appeared in the *Wonders of the Past* are:—*Tutankhamen and his Treasures*, by HALL (pp. 20-37); *500 years before Tutankhamen: Mohenkhetre*, by MACKENZIE (pp. 64-77); *Tutankhamen: How the Tomb was found*, by BRENDON (pp. 87-95); *Valley of the Tombs of the Kings*, by WEIGALL (pp. 154-164); *The Colossi of "Memnon"*, by AITKIN (p. 165); *The Gods of Ancient Egypt*, by PETRIE (pp. 166-182); *Thebes in its Splendour*, by WEIGALL (pp. 221-242); *The Exquisite Artistry of Ancient Egypt*, by MACKENZIE (pp. 252-268); *The Shrines of Isis at Philae*, by Miss MURRAY (pp. 281-9); *The Soul's Journey to Paradise*, by MACKENZIE (pp. 338-359); *The Wonder of the Mummy*, by ELLIOT SMITH (pp. 382-395); *The Temples of Edfu and Dendera*, by Miss MURRAY (pp. 396-406); *The Pyramids of Egypt*, by PEET (pp. 423-435); *The Rock Temples at Abu-Simbel*, by Miss MURRAY (pp. 530-7); *The Wonder of the Obelisk*, by ENGELBACH (pp. 602-9).

A "Société Française d'Égyptologie" has been founded in Paris, 2 rue Valette, where was already seated the Institute of Papyrology (formerly at Lille). The president of the new society is M. BÉNÉDITE and the secretary is Prof. Étienne DRIOTON. Among its first acts is the publication of a new periodical, *Revue de l'Égypte Ancienne*, to be edited by M. CHASSINAT. The *Revue* takes the place of the famous *Recueil de Travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes* which was founded in 1869 by ROUGÉ but discontinued in 1870 until MASPERO revived it and, completing the first volume in 1880, issued 37 complete volumes before his death in 1916; since which two more volumes have appeared under the editorship of M. CHASSINAT. It will also take the place of the *Revue Égyptologique*, fourteen volumes of which, from 1880 to 1914, were mostly the personal work of REVILLOUT: of this one complete volume and the first half of vol. XVI have appeared since REVILLOUT's death under the editorship of Prof. MORRH.

M. NAVILLE has written a very able and interesting review of the work of deceased French savants during the past century, *L'Égyptologie Française pendant un siècle 1822-1922*, in *Journal des Savants*, Sept. 1922. Lengthy sections are devoted to CHAMPOLLION, E. DE ROUGÉ, CHABAS, MARIETTE and MASPERO; DEVÉRIA, PIERRET, LEFÉBURE, HORRACK, ROCHEMONTAUX, BOURIAU, GUIEYSSE, GRÉBAU, REVILLOUT, AMÉLINEAU, VIREY and Jean MASPERO receive briefer notices. M. NAVILLE has the advantage of having personally known every one of these since CHAMPOLLION. For ROUGÉ is justly claimed the honour of being the first founder of a school of Egyptology and the first discoverer of Egyptian literature. One would have valued a word more regarding at least the artists Nestor L'HÔTE and PRISSE.

In the *Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin*, April 1923, no. 62, Prof. ED. MEYER as president of the Society in the 25th year of its existence, reviews the great work done by it in Babylonia, Assyria, Asia Minor and Egypt. The same scholar at the annual public sitting of the Berlin Academy reported on the Oriental Commission which the German Government has continued to support in spite of its poverty. The Kahûn papyri of the Middle Kingdom are now being worked upon by SCHARFF; fifty-four letters are finished and the highly important journal of the temple is begun. An index to RÖRDER's

Ägyptische Inschriften aus den Königl. Museen zu Berlin is being prepared, and the *Wörterbuch* is progressing. *Sitzungsberichte*, Öffentliche Sitzung, 25 Jan. 1923, pp. xxviii-xxxv, xlviii, lxiii-lxv.

The *Deutsche Literaturzeitung* for Feb.-March 1923 was devoted to articles on oriental matters, Prof. STRENDORFF writing on the tomb of Tutankhamun, and Prof. KARO on the important *Atlas zur Altägyptischen Kulturgeschichte* of WRESZINSKI.

WEIGALL has published a series of articles on ancient and modern Egypt and Egyptian exploration in a volume entitled *The Glory of the Pharaohs*, reviewed in *Ancient Egypt*, 1923, 63-4.

LAGIER, *À travers la Haute Égypte, nouvelles notes de voyage*, is reviewed in *Revue Archéologique*, xv, 179-180, and by WIEDEMANN in *Or. Lit.-Zeit.*, xxv, 505. The *Bulletin de l'Institut d'Égypte*, t. v, contains interesting papers on agricultural matters etc., and an account by DARESSY of the prevalent diseases noted by travellers in Egypt in the seventeenth century. In *Ancient Egypt*, 1923, 9-16, are interesting observations by a Coptic doctor of customs in modern Egypt, some of which may be derived from antiquity, SOBBY, *Customs and superstitions connected with pregnancy and child-birth*. In *Discovery*, 1923, 11-14, Miss BLACKMAN gives an account of the *māliids*, *Festivals celebrating local saints in Modern Egypt*.

Sudan Notes and Records, v, no. 3-4, describes customs and games of various Sudanese peoples. Prof. MEINHOF writes a very interesting article, *Die Sprachen Afrikas*, in the *Deutsche Revue*, XLVII, 256-9, characterising the principal groups of African languages:—Africa with its multitudinous varieties of speech presents linguistically an illustration of what Europe itself must have once been when the special languages of small communities were only beginning to disappear before the march of trade and conquest. Arabic and Ethiopic are obviously from Asia, Egyptian probably from Asia, and Berber from either Europe or Asia; the Ful people and the Bantu with their curious classes of words are perhaps also of Asiatic origin. The negroes of the Sudan, speaking agglutinative languages without any sort of gender or classification, are perhaps of African origin or at least of very remote settlement in Africa; the same may be said of the pygmies, the Bushmen and the Hottentot whose strangely mixed languages are compounded of northern and Bushman elements. JUNKER and SCHÄFER, *Nubische Texte im Kenzi-Dialekt*, is reviewed by KLINGENHEBEN in *Or. Lit.-Zeit.*, xxvi, 232-4.

EXCAVATIONS AND EXPLORATIONS.

A lecture by Prof. MARRO, the anthropologist attached to the Italian archaeological mission in Egypt, on the subject of excavation in Egyptian cemeteries with some references to the unpublished excavations which have been carried on among them for many years under the direction of Prof. SCHIAPARELLI, is printed in *Annales de l'Université de Grenoble*, xxxii, *Les Nécropoles Égyptiennes et les fouilles de la Mission Archéologique Italienne* (48 pp.).

A brief summary of the excavations of 1922-3 is given by Miss MURRAY, *General Results of the Season's Excavations in Egypt*, in *Mon.*, xxiii, no. 63.

MEROË. In the *Boston Museum of Fine Arts Bulletin*, xxi, 11-27, Dr REISNER reports on the excavations of 1920-22, *The Pyramids of Meroë and the Candaces of Ethiopia*. They have resulted in fixing the chronological order of the pyramids, the number of kings concerned (though not always the names), and other important historical data down to the decay of the Meroitic kingdom owing to inroads of Blémyes and Nabatae, and its complete downfall in the fourth century A.D. after an invasion from Axum. The south cemetery of Meroë proves to have been the burying place of a powerful family from about the time of Piankhy to 300 B.C., when kings began to rule at Meroë and built themselves pyramids there. After nine pyramids had been built, occupying all the suitable sites, the north pyramid field was begun and continued in use for the sovereigns down to about 350 A.D. The west cemetery corresponds to the north cemetery for the burial of the royal families. (The eighteen Meroitic pyramids at Napata represent two short lines of kings parallel to those of Meroë, before Napata received the death-blow to its importance at the hands of Petronius.) Several queens ruled during the minority of their sons and were then given burial in pyramids equal in size to those of the kings. Under Ergamenes there was an important revival at Meroë of Egyptian architecture and writing. The tombs yield evidence that *sati* and the sacrifice of the household were the custom in royal burials. Though all were severely plundered a quantity of interesting jewellery has been found, and a very remarkable Greek rhyton from the west cemetery is signed by the Attic potter Sotades and represents an Amazon on a horse supporting a red-figured cup.

This is supplemented by a very valuable paper, *The Meroitic Kingdom of Ethiopia: a chronological outline*, in *Journal*, ix, 34-77, giving the evidence in much detail. It is to be noticed that in REISNER's *Journ. of Egypt. Arch.* ix.

terminology the Ethiopian kingdom (from about 900 to 300 B.C.) is the "Napatan kingdom" or the "Napatan Period of Ethiopia," the later kings at Meroe represent the "Meroitic kingdom of Ethiopia," and two dynasties which ruled at Napata during part of the Meroitic kingdom are the "First and Second Meroitic Dynasties of Napata." It will be convenient to adopt these new labels. Dr REISSER is to be congratulated most warmly on his masterly achievement, bringing at once into light and order such a vast range of history and monuments. In this new article he publishes views and plans of all the pyramid fields and of several individual pyramids, and groups them all according to architectural and other characteristics in chronological series. He also figures a quantity of jewellery, but as yet without comment. The principal historical facts are fitted into place—King Ergamenes, Petronius' expedition, etc.,—and occasional revivals of art through importation of Egyptian architects are recognised. The important king Netekaman with his queen Amantere, although they built in several localities in different styles and associated different crown-princes, are but a single pair with a long reign. Meroitic cursive writing was invented before 200 B.C.; the hieroglyphic perhaps a century later to take the place of the forgotten Egyptian in architectural work. A list is given of all the Ethiopian kings by pyramids and by name (when the name is known) with approximate dates.

NAPATA. Memoir on a temple of Tirhakah and royal Ethiopian "Treasury" at Sanam nearly opposite Gebel Barkal, excavated in 1912-13, with remnants of remarkable processional scenes, etc. GRIFFITH, *Oxford Excavations in Nubia* (continued) in *Liverpool Annals of Archaeology and Anthropology*, ix, 67-124. (The previous instalments of this report, on the earlier periods at FARAS, are reviewed in *Ancient Egypt*, 1922, 60-61.)

SECOND CATARACT. A notable memoir on six of the forts including Semneh and Kummeh, with photographic views etc. and full references to the literature, the results of an expedition in 1900 without excavation, is written by BORCHARDT, *Altägyptische Festungen an der Zweiten Nilechnelle* (*Sieglin Expedition*, III).

RED SEA COAST, Ras Samadai, Lat. 24° 59' N. In *Man*, xxiii, No. 81, 1923, A *Pre-Dynastic Burial on the Red Sea Coast of Egypt*, G. W. MURRAY and DERRY describe a burial of the late Pre-dynastic Age containing a slate palette.

In a memoir proposing to open up this region by railways from the Nile to ports on the Red Sea at Kōşer and Berenice, RAIMONDI makes many references to its history and products and gives a photograph of the temple ruins at Berenice, *Le Désert Oriental Égyptien du Nil à la Mer Rouge* (*Mém. de la Soc. roy. de Géographie d'Égypte*, T. IV).

AŞWÂN. A small temple of Domitian has been discovered, and the unfinished obelisk in the quarry (31 metres in length) has been cleared and studied. ENGELBACH, *Notes of Inspection*, in *Ann. du Serv.*, xxi, 188-196. Cf. LACAU, *Rapport sur les travaux du Service des antiquités de l'Égypte en 1921-1922*, in *Comptes Rendus*, 1922, 378-9.

EDFU. Report on the work of the Institut français d'archéologie orientale, producing many antiquities of the Ptolemaic period, by FOUCART in *Comptes Rendus*, 1922, 421-422.

GEBELÉN. Note on the course of his exploration of the temple city and necropolis in 1910-11 and onwards, SCHIAPARELLI, *La Missione Italiana a Ghebelén*, in *Ann. du Serv.*, xxi, 126-8.

THEBES. A new map of the Theban necropolis is being made, and steps taken to remove dwellings to places where there are no tombs. ENGELBACH, *Report on the inspectorate of Upper Egypt*, *ibid.*, 62.

LYTHGOE's report of *The Egyptian Expedition 1921-1922* (*Bull. Metr. Mus.*, Dec. 1922, Part II) contains WINLOCK's *Excavations at Thebes* (pp. 19-49): work at the unfinished platform of the temple of S'ankhkeref (Menthopt V) with later burials; at Dêr el-Bahri, a grove of trees planted in enormous rock-cut pits in the avenue of the XIth Dynasty temple, which grove had perished immediately through neglect of watering, foundation deposits, an embalmer's table, and above all a long series of letters of Dynasty XI which are to be edited by Battiscombe GUNN.

Also DAVIES, *The Graphic Work of the Expedition* (pp. 50-56), in the private tombs, salvaging fragments that are in danger as well as complete copying of individual tombs: the illustrations here show contrasting examples of good and bad Egyptian drawing.

The difficult task of lowering the granite sarcophagus of Queen Hatshepsut down the cliff in which her tomb was cut into the ravine, BARAÏKE, *Rapport sur l'enlèvement et le transport du sarcophage de la reine Hatchepsout*, in *Ann. du Serv.*, xxi, 175-182; another queen's (?) tomb found in the same region utterly plundered, *id.*, *Rapport sur la découverte d'un tombeau de la XVIII^e Dynastie à Sikket Taqet Zayed*, *ibid.*, 183-7.

Account of the discovery of the "Tomb of Queen Taia" and its contents in 1907, WEIGALL, *The Mummy of Akhenaton*, in *Journal*, VIII, 193-200, with note by F. Ll. G. on the Jubilee slab in the Ashmolean Museum.

For the tomb of Tutankhamun, see above p. 201.

KARNAK. The main axis of the great temple having been cleared by LEGRAIN, PILLET is now clearing the transverse line of route to the temple of Mut. Between the pylons VII and VIII he has found a granite naos of Sesostri I, the name of Amun on it defaced by Akhenaten and restored. At pylon IX on the south face of the east tower a stela of Ramesses II is engraved. The interior of both pylons is made up of blocks of the heretical temple of Amenophis IV, still brilliantly coloured, which it is intended to extract and fit together. The alabaster blocks of a fine chapel of Amenophis I utilised by Amenophis III in pylon III are to be dealt with similarly. The plan of the small chapel of Ramesses III in the enclosure of the Mut temple has been recovered and affords a fresh instance of the variability of Egyptian temples. LACAU, *Rapport*, in *Comptes Rendus*, 1922, 374-7.

A find of sculptor's models near the entrance to the temple of Khons, ABOU-SEIF, *Une petite trouvaille à Karnak de modèles de sculpture*, in *Ann. du Serv.*, XXI, 214-221. A raised platform has been made after testing the ground at the north-west corner of the enclosure to save loose monuments from the inundation, and in getting the soil for this purpose from outside the first court architraves (?) of Osorkon I were found intended for the great colonnade but abandoned. PILLET, *Fouilles de l'angle nord-ouest de l'enceinte du grand temple d'Amon à Karnak*, with note on the inscriptions by DAHESY in *Ann. du Serv.*, XXII, 60-64. Repairs and preparations for further work, *id.*, *Rapport sur les Travaux de Karnak (hiver 1921)*, *ibid.*, 65-68.

DENDERAH. Clearance of the square block of building now forming the little Roman temple of Isis behind the Hathor temple shows that it was formerly enclosed, the hieroglyphs on the "exterior" walls being in relief. In front are remains of a portico the pavement of which consists of re-used sandstone blocks, two of them very remarkable, being decorated with inlays of polychrome faience of Ptolemaic work, LACAU, *Rapport*, in *Comptes Rendus*, 1922, 372-4.

ABYDOS. Three great squares of graves of Dyn. I, about 500 in all, were excavated in 1921-22, apparently of people about the royal court; they had been much plundered and the ground was full of later burials, but the royal names of Zer, Zet and Merneit, a very remarkable comb of Zet, ivory gaming-pieces, knives of copper, large flint knives, cylinder seals of wood, and vases of pottery and alabaster were found. Miss CATON THOMPSON collected flints systematically. Of later times there were many stelae and some fine inlays of ebony. PETRIE, *The British School in Egypt*, in *Ancient Egypt*, 1922, 33-39. Graves with "Kerma" pottery etc. found by GARSTANG in 1908, EMERY, *Two Nubian graves of the Middle Kingdom at Abydos*, in *Liverpool Annals of Archaeology*, x, 33-35.

QAU EL-KENIR. Graves found by BRUNTON with amulets of Dyn. IV-VI, continuing into the intermediate period with Syrian button-badges and seals, and scarabs of Dyn. IX. The great rock tombs are probably of Dyn. XI. An ivory-worker's shop of Dyn. XIX contained a curious collection of mineralised bones including portions of three human skulls. The great find of a very early papyrus book of St John's Gospel in Coptic belongs to another report, PETRIE, *The British School at Qau*, in *Ancient Egypt*, 1923, 44-45. Cf. *op. cit.*, 1922, 128.

ASYUT. A vast tomb of Dyn. XII at the foot of the necropolis hill, converted into a burying place for the sacred wolves, has been cleared by WAINWRIGHT, and produced 600 commemorative stelae of peculiar type extending from Dyn. XVIII to the end of the Saite period. The god Ophois is always in animal-form. LACAU, *Rapport*, in *Comptes Rendus*, 1922, 379-380.

TELL EL-'AMARNAH. A memoir by PEET, WOOLLEY, GUNN, GUY and NEWTON, *The City of Akhenaten*, Part I, *Excavations of 1921 and 1922*, describes work on the main city-site, in a village of necropolis-workers eastward, on a series of tomb-chapels, on the southern palace at El-Hawatah called Maru-Aten, and on remnants of a temple at Hâg Qandil which seems to have been frequented down to a late period, with plates of the finds, types of pottery and inscriptions.

OXYRHYNCHUS. Apparently everything earlier than Roman is now below water-level, and for twenty miles round a search revealed nothing earlier. Some colonnades were planned and a very large theatre, and the types of tombs in the great Roman cemetery were studied. Opposite on the east bank, a tomb of Dyn. VI had remains of long Aramaic inscriptions on the walls (see below, p. 214), PETRIE, *The British School in Egypt*, in *Ancient Egypt*, 1922, 33-39.

ABUSIR EL-MELEK. A memoir entitled *Harageh*, by R. ENGELBACH, describes the work of 1914 at the

south end of Gebel Abuḡir; the remains found were chiefly prehistoric, Intermediate and Middle Kingdom with jewellery, and some New Kingdom. Battiscombe GUNX learnedly edits the inscriptions on coffins, stelae and ostraca.

LISHT. Work has been disappointing in museum specimens but instructive in regard to ancient tomb plundering and in other ways. A large area was cleared down to the level of Dyn. XII on the west side of the pyramid. MACE, *Excavations at Lisht, in The Egyptian Expedition 1921-1922*.

SAKKĀRAH. Improvements have been made in the protection of the Street of Tombs, necessitated by a violent storm in 1919, BARSANTI, *Rapport sur des restaurations exécutées à Saqqarah en 1920*, in *Ann. du Serv.*, XXII, 69-71. FIRTH has found the subterranean chambers of Mera covered with texts and offerings, and the great monolithic sarcophagus in place. The entrance of the tomb, on the south instead of the usual east, faces the pyramid of Teti. Between the pyramid and the mastabas are inferior tombs of the Middle Kingdom, one yielding a large series of models including some new types, LACAU, *Rapport*, in *Comptes Rendus*, 1922, 377-8.

ABUḡIR. In 1905 the first volume of BISSING's *Das Re-heiligtum des Königs Ne-Woser-Re (Rathures)* was published, containing the description of the building (*das Bau*) by BORCHARDT. A second volume, *Die kleine Festdarstellung*, has now appeared giving the remnants of reliefs representing the Sed-festival from the Sacristy (BORCHARDT's "Kapelle"), described by BISSING and arranged by KEES who finds in them a double series for Upper and Lower Egypt respectively. Two more volumes of this highly important publication are to follow eventually.

GIZAH. The access to the Great Pyramid has been rendered easier by clearing the north face to the rock and furnishing the great gallery with a safe wooden ramp; electric light is to be installed, BARAIZE, *Rapport sur les travaux exécutés à la Grande Pyramide*, in *Ann. du Serv.*, XXI, 169-174.

There is no ground for the idea of a contra-Sphinx; Prof. PETRIE has searched the east bank for traces of a companion to the Great Sphinx without success, *Ancient Egypt*, 1922, 64.

LOWER EGYPT. At HELIOPOLIS tomb of Ramosi; from KŌM ABU BILLŌ (Terranah), funerary stelae; at ATHRIBIS granite triad of Ramesses II, GAUTHIER, *À travers la Basse-Égypte*, in *Ann. du Serv.*, XXI, 197-213. At TELL MOḠDAM jewellery, etc. from a tomb probably of Dyn. XXII, *id. ibid.*, 21-27.

At KOM EL-KANĀTER (near Abu-Hommos and 39 kilometres S.W. of Alexandria) an important find of flint instruments and pottery of the Old Kingdom (?) has been made immediately beneath the Ptolemaic mound. BRECCIA, *Vestigia Neolitiche nel Nord del Delta*, in *Bull. Soc. Arch. d'Alex.*, v, 152-7.

Discoveries of a remarkable form of Hellenistic footbaths made of limestone in one piece with seat, generally found grouped in a circle, at Taposiris (rock-cut), Alexandria, Abuḡir, etc. BRECCIA, *Di alcuni bagni nei dintorni d'Alessandria*, *ibid.*, 142-151; a fine mosaic of hunters and animals in Alexandria, *id.*, *La mosaïque de Chatby*, *ibid.*, 158-165.

ISTHMUS OF SUEZ. CLÉDAT, *Notes sur l'Isthme de Suez*, XVIII, *De la géographie économique et historique*, a long section placing the Ramesside residence at Zaru (el-Kanṭarah) which city lost its importance in late times, giving place to Pelusium. Greeks and Phoenicians developed the coastal traffic and diverted the main caravan route northward along the shore.

PUBLICATION OF TEXTS.

(a) From sites in Egypt, etc.

EDFU. Middle Kingdom stelae of Senbu and Theni, KUENTZ, *Deux stèles d'Edfou*, in *Bulletin Inst. Fr. d'Arch. or.*, XXI, 107-111; three stelae, ENGELBACH, *Report on the Inspectorate of Upper Egypt from April 1920-March 1921*, in *Ann. du Serv.*, XXI, 61-76. Scarab of Shesha and stelae naming king Dudumes and Shabako, *id.*, *Notes of Inspection*, April 1921, *ibid.*, 188-196; catalogue of stelae etc. with photographs of several new ones, note on the ancient word for "mother-in-law," index of names and excursus on a new god "Isi the divine, the living," probably a deified man, *id.*, *op. cit.*, XXII, 113-138.

THEBES. Two sumptuous volumes containing the full publication of the fine but much ruined tomb no. 39, of an official under Hatshepsut and Tuthmosis III, DAVIES, *The Tomb of Puyemré at Thebes* (Robb de Peyster Tytus memorial series). Collated inscriptions of the tomb of Zeserkarê-senb with several not in SCHEIL's publication, KUENTZ, *Les textes du tombeau n° 38 à Thèbes (Chaikh Abd el-Gourna)*, in *Bull. Inst. Fr.*, XXI, 119-130.

Fragments of duplicate of the Israel-inscription of Menephtah from inside the east wall of the court between pylons III and VII at Karnak, KUENTZ, *Le double de la stèle d'Israël à Karnak*, in *Bull. Inst. Fr.*, XXI, 113-117.

Statue of Sebekhotp IV, id., *Report on the Inspectorate of Upper Egypt from April 1920—March 1921*, in *Ann. du Serv.*, XXI, 61-76; shawabti figures of Ramesses VII, ENGELBACH, *Notes of Inspection, April 1921*, op. cit., XXI, 193-4; inscription of Mentemhêt of Dyn. XXV from Dêr el-Bahri with a remarkable hymn to the Sun-god republished with a new fragment, DARESSY, op. cit., XXII, 167-8; *Stèle d'un chef de chanteurs*, KUENTZ in *Recueil Champollion*, 601-610.

ABYDOS. Detailed review of WINLOCK, *Bas-reliefs from the temple of Ramses I at Abydos*, by WRESZINSKI in *Or. Lit.-Zeit.*, XXV, 501-5.

TELL EL-'AMARNÄH. Labels of lumps of stucco giving a name which appears to be borrowed from Babylonia, and perhaps has the same origin as our word "gypsum." *Gipsproben aus Tell el Amarna mit hieratischen Aufschriften* by SPIEGELBERG in *Zeitschr. f. äg. Spr.*, LVIII, 51-52.

TEHNAH. LEFEBVRE continues his publication of the abundant and very important *Textes du Tombeau de Petosiris*, classified according to content and translated with commentary, *Ann. du Service*, XXI, 40-60, 145-162, 222-246, XXII, 33-48, 139-156. Those which accompany three registers of agricultural scenes are in *Recueil Champollion*, 74-92, *Légendes de scènes agricoles au tombeau de Petosiris*.

AHNÄS. Stelae of the kings Pefteuanbaste and Petubastis; statue of Semteutefnakhte and of a Xoite personage, DARESSY, *Fragments Héracleopolitains*, in *Ann. du Serv.*, XXI, 138-144.

SAKKÄRAH. The fourth volume of SETHE's edition of the Pyramid-texts. See below p. 215.

LOWER EGYPT. Fragments of a Ramesside tomb at BENHA; tomb containing jewellery and block of Osorkon II from TELL MOQDÄM; four Saite reliefs imitating Old Empire work, from BUTO, HELIOPOLIS, MEMPHIS and ?; sphinx of Dyn. XXVI from SAIS; granite statuette of the goddess Buto from BUTO; Ptolemaic stela from El-Barâdah near KÄLYÜB referring to Athribis, GAUTHIER, *Ann. du Serv.*, XXI, 17-39. Inscriptions of Ptolemy Soter from NAUKRATIS, EDGAR, *Some hieroglyphic inscriptions from Naukratis*, op. cit., XXII, 1-6. Stela of Osorkon II and the deities of Pharaohbaethus from Mît Yaish (not far from Sahrâg and Moqdâm), DARESSY, *Une Stèle de Mît Yaish*, op. cit., XXII, 77.

(b) *From Museums, etc.*

TURIN. From the Drovetti collection of Theban papyri BOTTI publishes fragments resembling the "Poem of Pentaur" but in honour of Tuthmosis III, *Frammenti di un testo storico in onore di Tutmosi III*, in *Rendiconti d. R. Acc. d. Lincei*, XXXI, 348-353, and of registers of families of the necropolis-people, *Frammenti di registri di stato civile della XXª Dinastia*, *ibid.*, 391-4.

BRUSSELS. 100 large pages of hieroglyphic inscriptions and papyri and hieroglyphic transcripts of hieratic papyri and ostraca, 423 in number, from old collections and recent scientific excavations with brief bibliographical references, followed by concise translations and indices, all in autograph. SPELEERS, *Recueil des Inscriptions Égyptiennes des Musées Royaux du Cinquantenaire à Bruxelles*. A coffin from Beni Hasan, well dated to Dyn. XII, gives a remarkably full text of Ch. 17 of the Book of the Dead, nearly as full in the "Commentary" as the texts of the New Kingdom and two inks are used so as to distinguish text from commentary; unfortunately nearly half is lost. Edited by SPELEERS, *La Version du chapitre XVII du Moyen Empire*, in *Recueil Champollion*, 621-649.

(c) *Miscellaneous.*

SETHE continues his edition of *Die Sprüche für das Kennen der Seelen der heiligen Orte*. The fifth spell, *Zeitschr. f. äg. Spr.*, LVIII, 1-24, Ch. 112 of the Book of the Dead, gives reasons why Buto belonged to Horus, why the oryx and boar were considered unclean, and how the four children of Horus were distributed between Buto and Hierakonpolis. The sixth spell, *ibid.*, 57-78, Ch. 113, gives a story of the loss and restoration of the hands of Horus, and the placing of two of his sons in Hierakonpolis.

A stela of the Early Intermediate Period, GARDINER in *Journal*, VIII, 191-2. MUNIER, *Un Achat de terrains au temps du roi Si-Amôn* (of year 16, at Memphis, found at Fostât), in *Recueil Champollion*, 361-6.

The Song of the Litter-Bearer found in tomb-scenes of the Old Kingdom with a new and ingenious interpretation, WRESZINSKI, *Das Lied der Sänfteenträger*, in *Or. Lit.-Zeit.*, XXVI, 310-312.

ERMAN edits a hymn to Amûn (literary not liturgical) not later than the reign of Ramesses II, a corrupt and difficult text on a papyrus at Leyden; it is of special interest for the numerical puns which GOODWIN first recognised sixty years ago. *Der Leidener Amonsymnus* in *Berlin Academy Sitzungsber.* 1923, 62-81. The translation is printed in ERMAN's *Ägyptische Literatur* (below, p. 219).

(d) *Hieratic and Demotic.*

The British Museum has issued a magnificent volume containing 128 large photographic plates, *Facsimiles of Egyptian hieratic Papyri in the British Museum, with descriptions, etc.* by E. A. Wallis BUDGE,

Second Series. Fourteen plates contain a new literary text, the Teaching of Amenophis the son of Kanekht, perhaps dating from the New Kingdom, but in a late copy of about Dyn. XXVI (a further portion of this papyrus containing a hymn to the Sun-god is printed in the text): sixteen plates reproduce another long text recommending the career of a scribe, etc. (Lansing Papyrus): ten plates following, magical texts and representations (Salt Papyrus) which had hitherto been published only in a little-known Russian memoir by TURAEFF. The remaining eighty-eight plates represent papyri (of the Sallier, Anastasi and Harris collections) which have long been famous but have never appeared in photograph. Most of these were lithographed by NETHERCLIFT in vol. I of the *Select Papyri of the British Museum* and the rest by MASPERO and W. M. MÜLLER.

SOTTAS publishes an ostrakon of Dyn. XVIII with sentences regarding the happy elevation of the poor to places of dignity (by the king!), *Un Ostrakon thébain de la XVIII^e Dynastie*, in *Recueil Champollion*, 483-493; R. WEILL three pages of magic prescriptions and words against crocodiles etc. on papyrus, *Un recueil magique du début du nouvel empire*, op. cit., 651-671; DARESSY, ostrakon with long and interesting titles of an official of the royal necropolis, *Un ostrakon de Biban El Molouk*, in *Ann. du Serv.*, XXII, 75-76. SPIEGELBERG's *Ägyptische und andere graffiti aus der Thebanischen Nekropolis* is reviewed by SCHÄFER in *Or. Lit.-Zeit.*, XXVI, 152-5.

The principal publication of demotic in the year is SPIEGELBERG's elaborate edition of the demotic texts of the famous Ptolemaic decrees on the tablet of Canopus and the Rosetta Stone, *Der demotische Text der Priesterdekrete von Kanopus und Memphis (Rosettana)*. "Letters of divorce" are known from the reigns of Amasis, Darius and Energetes; most of these are translated by SPIEGELBERG, who publishes three new examples of the later Ptolemaic age from Gebelén, along with two papyri from Karârah south of El-Hibah dated in the reign of a king who may be Teos but more probably a local kinglet hitherto unknown of the time immediately before Alexander. The last are a pair of contracts of alimony belonging to a single transaction; a list of such contracts is given with a new version of one example of the time of Philip Arridaeus. *Demotische Papyri (Veröffentlichungen aus d. badischen Papyrus-Sammlungen)*. A valuable review by the same scholar of SOTTAS, *Papyrus démotiques de Lille* is in *Or. Lit.-Zeit.*, XXV, 397-402.

(e) *Meroitic.*

Forty-six texts on altars and stelae, GRIFFITH, *Meroitic funerary inscriptions from Faras, Nubia*. The genealogies and titles are more or less intelligible and give the ancient name of Faras, namely Pachoras.

HISTORY.

The Cambridge Ancient History is designed to form eight volumes. In the first volume *Egypt and Babylonia to 1580 B.C.*, the chapters on Egypt are written by Prof. MACALISTER (*Exploration and Excavation*), Dr HALL (*Chronology*, and *History from the union of Egypt to the Hyksos conquest*), and Prof. PERT (*The Predynastic Period*, and *Life and Thought in Egypt under the Old and Middle Kingdoms*).

SCHIAPARELLI considers that beyond the first millennium B.C. there is no secure chronology for Egypt, and would place the beginning of the XIIth Dynasty about 2400 with possible errors of centuries. He incidentally tells of magnificent tombs of Dyn. XIII which he excavated at Ka el-Kebir, utterly destroyed by the opponents of Seth-worship, *La cronologia egiziana e l'ipotesi sethica*, in *Recueil Champollion*, 133-151. BARENTON has published a strange work, *Le mystère des Pyramides et la chronologie sethique égyptienne reconstituée sur de nouvelles bases*. SETHE proves from a number of instances that throughout the New Kingdom the regnal year was counted from the calendar-date of his accession, while in the Old Kingdom and after the archaistic revival in the XXVth Dynasty, the second and subsequent years were counted from 1 Thoth. Probably the former change took place in the Hyksos period. *Zur Jahresrechnung des Neuen Reichs* in *Zeitschr. f. äg. Spr.*, LVIII, 39-42.

ERMAN's celebrated work *Ägypten und ägyptisches Leben im Altertum* ("Life in Ancient Egypt"), published in 1885-1886, has been brought up to date in a new edition by RANKE. The first edition was founded mainly on LEPSIUS' *Denkmäler*, WILKINSON's *Ancient Egyptians* and the British Museum *Select Papyri*. The bibliography of ten pages, as against one page in the original edition, shows the expansion of the subject in nearly forty years. The scheme of the original work is preserved with the same divisions into chapters, and many pages show practically no change except in the references. The plates are increased from 12 to 100 and a prodigious amount of new material has been made use of; yet by a more economical use of the paper, the pages are reduced from 742 to 692. The work as before concerns itself almost wholly with the period from the beginning of the Old Kingdom to the end of the New Kingdom.



WIEDEMANN's *Das Alte Ägypten* is reviewed by PIEPER in *Or. Lit.-Zeit.*, xxv, 500-1.

In a work on the development of social organisation among primitive peoples and in the Near East, Prof. MORER is responsible for a very clear account of Egypt and its neighbours from the earliest times, occupying more than half of a volume of 400 pages, MORER et DAVY, *Des clans aux empires*; the passage from the complete royal monopoly of religion through revolution to a state in which the poor man had the same standing as the king assimilated to Osiris is shown by the same authority, *L'accession de la Plèbe Égyptienne aux droits religieux et politiques sous le Moyen Empire*, in *Recueil Champollion*, 331-360.

PETRIE has written a small volume on *Social Life in Ancient Egypt*, very concisely summing up his views and observations after collecting full data for a volume of Herbert SPENCER's *Descriptive Sociology*. He has also recast the first volume of his *History of Egypt; from the earliest kings to the XVIIIth Dynasty*, adding an ingenious table of all the royal names: reviewed by PEET in *Journal*, ix, 123-6.

KEES has written the articles on Egyptian historical names in PAULY's *Real-Encyclopädie* from Selinus to Sila, the most important being Sesonchosis (7 cols.) and Sesostriis (16 cols.).

NEWBERRY has put forward a remarkable view of the end of the Second Dynasty. Perabsen was a usurper under the standard of Seth rebelling against the old order under Horus; Khasekhem of Hierakonpolis resisted and suppressed him, re-uniting the two factions as Khasekhemui. With him the dynasty appears to have ended. The myth of Horus of Edfu is almost an historical document detailing the steps in this very struggle in the year 363 of Harachthes (i.e., 363 years in the era of Menes), and is professedly related by Imhotep to a king who should be Zeser, the founder of Dyn. III. *The Set-Rebellion of the IInd Dynasty in Ancient Egypt*, 1922, 40-46; compare the editorial criticisms, *ibid.*, 63-64.

GAUTHIER, *Le terme géographique*  "*Haute Égypte*" et le titre , in *Recueil Champollion*, 217-244, notes an example of the spelling *imw* of Dyn. XVIII. A "governor of Upper Egypt" is found under the last kings of Dyn. V and continued into the Saite period; he was next in rank to the vizier and occasionally held that office. A valuable list of the governors of Upper Egypt is given in the paper.

Khuy, high priest of Heliopolis, mentioned in the Ebers papyrus, is to be identified with the owner of a recently found tomb at Heliopolis. SPIEGELBERG, *Der heliopolitanische Hohepriester Chui*, in *Zeitschr. f. äg. Spr.*, LVIII, 152.

On the evidence of an ill-written stela, BAILLET suggests that Amenemmes II was a nephew or cousin, not a son, of Sesostriis I. *Hypothèses sur Amen-m-hât II* in *Recueil Champollion*, 257-260.

WEILL explains and defends the position which he had taken up in regard to the Turin Papyrus of kings and other matters, in *Notes sur la fin du Moyen Empire Égyptien* in *Journ. Asiatique*, CCII, 118-130.

DARESSY, *Les listes des princes du commencement de la XVIII^e Dynastie à Deir el-Médineh*, in *Recueil Champollion*, 283-296, gives ingenious and for the most part convincing emendations of the doubtful names. These lists of deceased princes, put in the tombs of the priests devoted to their cult, are of no value for chronological order.

WEILL's paper on *Kamès de Thèbes* from the *Cinquantenaire* of the Paris Éc. d. Hautes Études is reviewed by PIEPER in *Or. Lit.-Zeit.*, xxvi, 150-2.

The architect Benermerut, found on several monuments, is of the time of Tuthmosis III, SPIEGELBERG, *Der Architekt Bnr-mrwet*, in *Zeitschr. f. äg. Spr.*, LVIII, 151-2.

Photograph of the relief-block extracted by PRISSE from the pylon of Horemhab, in which the Aten gives sed-festivals to Amenophis IV, in a less-developed style than that of the Gayer-Anderson relief in Oxford. ASSELBERG, *Ein merkwürdiges Relief Amenophis' IV im Louvre-Museum*, in *Zeitschr. f. äg. Spr.*, LVIII, 36-38.

WEIGALL has published a new and revised edition of *The Life and Times of Akhenaton*; reviewed in *Ancient Egypt*, 1922, 78-79.

A series of sixteen plates of imaginary scenes in Akhenaten's capital, with correct detail carefully studied, AUER und SIEMENS, *König Echnaton in El-Amarna*; reviewed by SPIEGELBERG in *Or. Lit.-Zeit.*, xxvi, 155, and by PEET in *Journal*, ix, 129-130.

In *Tutankhamen, Amenism, Atenism, and Egyptian Monotheism* (with long texts reprinted in hieroglyphic) Sir ERNEST BUDGE takes a less favourable view of the Aten heresy than most writers have done, and holds that monotheism of this kind was no great novelty in Egypt.

PEET writes on *The Life of Tutankhamon* in *Discovery*, iv, 30-32; and in *Bulletin of the Metrop. Mus.*, xviii, p. 100, there is a note on the unique date in the reign of this king printed upon a piece of linen.

Waldemar SCHMIDT identifies Menophres with Ramesses I, who should therefore have ascended the throne in 1321. *Chronologie et sources égyptiennes de la XIX^e dynastie*, in *Recueil Champollion*, 153-181.

SPIEGELBERG summarises the information derivable from wine-jar inscriptions of the Ramesseum in various collections; the bulk, found by PETRIE and now at Strasbourg, were published in 1898. Typical inscriptions, lists of geographical names, names of chief husbandmen, dates in the reign of Ramesses II, and the curious dating of the bottling (?) by days of an unnamed month [lunar days ?] are given. *Bemerkungen zu den hieratischen Amphoreninschriften des Ramesseums in Zeitschr. f. äg. Spr.*, LVIII, 25-36. SETHE notes that in his first year Ramesses II acted as "First Prophet of Amūn": *Miszellen in op. cit.*, LVIII, 54.

DAWSON writes on *The Tomb of the Kings at Thebes: a chapter from their ancient history*, derived from the papyri which describe the lives and hardships of the workmen and the robberies in the necropolis, in *Asiatic Review*, 1923, 319-329; so also BLACKMAN, *The Plundering of the Royal Tombs at Thebes in the Twentieth and Twenty-first Dynasties*, in *Discovery*, IV, 39-44. SPIEGELBERG shows that the Mayer Papyrus A and a papyrus in the British Museum give evidence of an unsuccessful revolt of Amenhotp the high priest of Amūn against Ramesses IX, *Die Empörung des Hohenpriesters Amenhotpe unter Ramses IX*, in *Zeitschr. f. äg. Spr.*, LVIII, 47-48.

F. W. READ argues ingeniously and almost convincingly that Apries was born in the reign of Psammetichus I and adopted as successor by Psammetichus II before his early death; and further that he is identical with a certain general Wahebrê-o-ken in the reign of the latter. *Was Apries of Royal Blood?* in *Ancient Egypt*, 1923, 57-59.

GAUTHIER identifies a sarcophagus at Sais and nine statues in various museums of a high official (priest, general and officer in charge of foreigners) of Dyn. XXVI named Wahebrê, with numerous titles which he discusses. *Un notable de Sais: Ouah-âb-ré* in *Ann. du Serv.*, XXII, 81-107.

A group of demotic papyri dated between 318 and 217 B.C. found by Dr FISHER at Thebes includes one dated in the tenth year of Alexander Aegus, six months after his murder, while Soter continued nominally as his satrap. REICH, *A notary of Ancient Thebes*, in *The Museum Journal*, Philadelphia, XIV, 22-25.

BISSING places the tomb of Petosiris at Tehnah about 305 on the evidence of the biographical inscriptions. *Die Datierung des griechisch-ägyptischen Grabes von Mellai* in *Or. Lit.-Zeit.*, XXVI, 1-4.

Having established the order of kings of the older Napatan Kingdom of Ethiopia, Prof. REISNER explains the archaeological method by which he has arranged the series of the later Meroitic kings after excavation of their pyramids. Unfortunately the names of many of the kings remain unknown owing to the rarity of inscriptions. The main results are that Nastaseñ, the last of the early Ethiopian kings buried at Napata, must have died close on 300 B.C.; that the southern cemetery at Meroe contained graves of the ancestors of the Meroitic kings, and pyramids of three of these kings following on Nastaseñ. The northern cemetery was reserved for pyramids of apparently more than fifty kings and regents, following on those of the southern cemetery; while the western cemetery in the plain was for royal relatives and others of the same period. Ergamenes, c. 225 B.C., was the second of the fifty in the northern cemetery. The Meroitic pyramids of Gebel Barkal belong to periods of divided power; the first, following Nastaseñ's reign, was ended by Ergamenes, the second began after five more reigns and ended with the overthrow of Napata by Petronius in 23 B.C. The Meroitic kingdom thereafter continued until its destruction by the Abyssinian invasion about 350 A.D. One result of decipherment of the Meroitic inscriptions is to show that Candace was not the name but the title of queens; queens regnant were not by any means the rule in Ethiopia as seemed to be implied by the scanty classical authorities; but, owing to several accidental minorities of kings and similar circumstances, queens happened to exercise unusual authority in a number of cases. *The Pyramids of Meroe and the Candaces of Ethiopia in Sudan Notes and Records*, V, 173-196. These are again brilliant historical results indeed. See above, p. 203.

GEOGRAPHY.

Prince Omar TOUSSOUN has written a memoir, illustrated by thirteen maps, on the branches of the Nile, as recorded in Strabo and Ptolemy, founded on earlier researches from the *Description d'Égypte* to MAHMOUD Pacha's *Mémoire sur l'antique Alexandrie*, criticised and corrected by the light of recent discoveries. It appears simultaneously as the first fascicule of Tome IV of the *Mémoires* of the Institut d'Égypte and of Tome I of those of the Société Archéologique d'Alexandrie; reviewed by CALDERINI in *Aegyptus*, IV, 85-86, and in *Journal*, IX, 127-8.

CLÉDAT places Avaris at Zaru-Sile-Kantarah on the Suez Canal, *Le Site d'Avaris*, in *Recueil Champollion*, 185-201; and gives a long account of the Jifār or Mediterranean border of the Sinai region from the Delta to 'Arish, describing its condition in ancient times and at the present day, and its development under Greek and Roman influence until the Arab conquest, after which neglect reduced it to its naturally half-sterile state, *Notes sur l'isthme de Suez*, §§ XVI-XVII, in *Bulletin de l'Inst. Fr. d'Arch. Or.*, XXI, 55-106.

FOREIGN RELATIONS.

Dr Elliot SMITH has published a new and revised edition of the *Ancient Egyptians and the Origin of Civilisation*, which expounds his theory that civilisation generally originated in Egypt; he now carries the theory further to include agriculture, the use of gold, etc., and adopts PERRY's view that ideas were greatly spread by mining enterprise.

Psychology and Politics and other Essays, by the late W. H. R. RIVERS, includes a lecture, *The aims of Ethnology*, in which he accepted and expounded Elliot SMITH's views and their expansion by PERRY as long ago as 1919.

The Children of the Sun, by W. J. PERRY, is a remarkable work by an anthropologist elaborately arguing that archaic civilisation, originating in Egypt, spread over the world carrying with it the idea of megalithic construction, dual system of society, love of gold, etc., etc. The different countries which it reached adopted or rejected features of the civilisation according to circumstances and taste; frequently where "the Children of the Sun" (who brought the knowledge of mysteries and established themselves as leaders of society) died out, arts, crafts, rites and customs which they practised also ceased in that place, retrogression being as important a phenomenon as progress in the history of the human race.

As Egyptian explorers and navigators play a large part in the theory, it is interesting at least to note that an expert, August KÖSTER, gives a high idea of the seamanship necessary to carry out the voyages which the Egyptians undertook, especially those in the Red Sea, from a land and shores which offered no sort of inducement to undertake sea-voyages. *Zur Seefahrt der alten Ägypter in Zeitschr. f. äg. Spr.*, LVIII, 125-132. Professor PETRIE discovers in certain careful constructions of ancient date in New Mexico a cubit of about 20.7 inches, agreeing with the Egyptian, Babylonian and other cubits in the Old World. *An Old World cubit in America in Ancient Egypt*, 1922, 98-99.

EUROPE, etc. BISSING furnishes some remarks on the Egyptological connexions with Crete to an article by KABO, *Der Palast des Minos zu Knossos*, reviewing Sir Arthur EVANS' *Palace of Minos*, vol. I, of which there are reviews also in *Ancient Egypt*, 1922, 50-53, and by HALL in *Journal*, VIII, 287-8. BLEGEN's *Korakou, a prehistoric settlement near Corinth*, is reviewed by HALL, *ibid.*, 289.

In *The Peoples of the Sea, a chapter of the history of Egyptology*, in *Recueil Champollion*, 297-329, HALL traces the changes of opinion among scholars in regard to the Sea-peoples, from CHAMPOLLION's identification of the Philistines onwards.

An ingenious memoir by EISLER, *The Introduction of the Cadmeian Alphabet into the Aegean world in the light of ancient traditions and recent discoveries*, in *Journal of the R. Asiatic Soc.*, 1923, 35-73, 169-207, discusses in the first place certain copper ingots of the seventeenth century B.C. inscribed with letters which he interprets as proto-Phoenician and meaning "full weight" and "pure"; EISLER points out that Greek tradition assigns a Cadmeian origin both to letters and to the arts of mining and metal-working; he finds in Khyas and the Hyksos dynasty the originals of the conquest-traditions of Sesostris and of Osiris or Busiris while Cadmus was a fugitive descendant of the dynasty. The Sinai inscriptions are a blend of alphabetic writing with Egyptian hieroglyphic. STUBE, *Der Ursprung des Alphabetes und seine Entwicklung*, a short history of the alphabet with tables, is reviewed by MENTZ in *Or. Lit.-Zeit.*, XXVI, 7-8.

MALLEY treats of *Les Rapports des Grecs avec l'Égypte de la conquête de Cambyse 525 à celle d'Alexandre 331* (tome XLVIII of *Mémoires* of the Inst. Franç. d'arch. Or.). FAURE, *L'Égypte et les présocratiques*, endeavours to show that Greek science and philosophy had their roots in Egypt, utilising Egyptological authorities of varying value.

A work by GASTALDI-MILLELIRE, *Studi e ricerche*, in which five scarabaei from Tharros are published, is reviewed by PIEPER in *Or. Lit.-Zeit.*, XXVI, 114. MONNERET DE VILLARD publishes four objects (uraei and crown of Amen-Ré) in the Morgan collection, purchased with Merovingian antiquities from Picardy. *Ogetti egizi in una tomba germanica in Aegyptus*, III, 315-320.

It has been proposed to see in certain segmented beads from tumuli of the bronze age in Wiltshire direct importations from Egypt made of faience and datable to the Eighteenth Dynasty. Mr J. G. CALLANDAR, the Director of the Scottish National Museum in Edinburgh, writing on *Scottish Bronze Age hoards*, in *Proc. Soc. Ant. Scotland*, IX, 123-166 deals on pp. 141-2 and Fig. 3 with segmented beads of this age from Scotland. On examination they prove to be of vitreous paste throughout, and associated with them are peculiar star-shaped beads of the same material which have never been found in Egypt or in any other country outside Scotland and Ireland. All are therefore presumably of home manufacture.

Asia. SUSA. Hawk of green glaze inscribed on the breast "Nun, Spirits of Pe, Spirits of Nekhen, Buto." SCHEIL, *Sur un Horus-faucon trouvé à Suse*, in *Recueil Champollion*, 617-619.

TELL EL-'OBEID, UR and SHAHREIN. Dr HALL writes on *The Discoveries at Tell el-'Obeid in Southern Babylonia and some Egyptian comparisons* in *Journal*, VIII, 241-257; pointing out that types which are found in the archaic art of both Egypt and Babylonia persisted in the latter country but not in Egypt. WOOLLEY's excavations at UR in 1922-3 are noted in *Journal*, IX, 118-119.

BYBLOS. A fall of rock from the cliff disclosed a corner of a cave-tomb without disturbing the contents, and as most of the objects deposited in the tomb were hidden by a deposit of infiltrated clay and the discovery was at once reported to the administration, the entire find was secured. It is of the highest importance, being exactly dated and uniting products of Syrian handiwork with those of Egypt on the one hand and of the Aegean on the other. The Director of the Service des Antiquités records the discovery with careful plans and figures of the objects. The tomb is of the Twelfth Dynasty and consists of a chamber reached by an irregular gallery from a vertical pit; the stone sarcophagus had been lowered into it by a separate pit afterwards blocked. The sarcophagus was unopened and contained vessels and ornaments of gold, silver and bronze, a bronze scimitar, and remains of inlay in faience and ivory, but only remnants of bones. Around the sarcophagus lay jars, jugs and dishes of early Canaanite type, Egyptian vases of alabaster and bronze vessels, flesh-hooks, etc. The only inscriptions were cartouches of Amenemmes III on plaques of gold fallen from an unguent vase of a well-known type from Egypt which lay inside the sarcophagus, and two brief inscriptions on the same vase regarding the contents. This vase is dealt with by M. NAVILLE; M. CLERMONT-GANNEAU suggests that obsidian was obtained by the Egyptians from Ethiopia and that the vase had been a gift of the Egyptian king to his vassal or ally at Byblos. M. POTTIER deals with two silver vessels showing a relationship with one from the earliest of the royal tombs at Mycenae; with the scimitar, of a type found occasionally in Egypt but probably originating in Chaldaea; and with the silver soles of a pair of sandals, and other objects. VIROLLEAUD, *Découverte à Byblos d'un hypogée de la douzième dynastie égyptienne*, NAVILLE, *Le vase à parfum de Byblos*, CLERMONT-GANNEAU, *Note additionnelle*, POTTIER, *Observations sur quelques objets trouvés dans le sarcophage de Byblos*, all in *Syria*, III, 273-306, reviewed by CALDERINI in *Aegyptus*, IV, 215-7. PETRIE discusses the find briefly as mainly Egyptian, with some objects displaying the independent civilisation and inventive power of Syria, and others Cretan; the peculiar sarcophagus seems to have been laid out on a palm measure, the quarter of a Syrian foot of 11 inches. *Ancient Egypt*, 1923, 33-37. Correspondence announcing the discovery and describing it, by VIROLLEAUD and NAVILLE, are printed in *Comptes Rendus*, 1922, 105-6, 147-150, 234, 337.

From the reports of MONTET it appears that the temple site lies below the citadel hill on the south side and is occupied by houses and gardens. He distinguishes two temples. In the remains of the "Egyptian" temple are the lower parts of several colossal statues of kings (I), standing and sitting, without inscription, and fragments of statues of a goddess and a god. Thirty metres to the west of it is the "Phoenician" temple, beneath the pavement of which is a layer of vessels (mostly in fragments) of alabaster and red pottery, some inscribed with the names of Menkaure, Unis and Pepy I and II, along with beads, Syrian and Egyptian cylinders and even gold ornaments. Upon the pavement are fragments of sculpture dating from the Middle Kingdom and down to Greek times.

Between the cave-tomb and the citadel was a Roman colonnade of which six columns have been re-erected. Correspondence of MONTET printed in *Comptes Rendus*, 1922, 7-20: MONTET, *Les fouilles de Byblos en 1922*, op. cit., 1923, 84-96.

See also WOOLLEY, *Early Pottery from Jebel*, in *Liverpool Annals of Archaeology*, x, 36-40.

BEISAN. In 1921-1922 Dr FISHER discovered in the foundations of a Byzantine church a stele of Sethos I, with 20 lines of inscription, two-thirds of which are hopelessly destroyed; it mentions the 'Aperu and Tuir[sha]. *The Museum Journal*, Philadelphia, XIV, 5-7, cf. *Pal. Expl. F., Qu. St.*, 1922, 159, and *Brit. Sch. of Arch. in Jerus.*, *Bulletin* no. 2, pp. 17-18. OVENDON, *Notes on the Excavations at Beisan*, *P. E. F., Q. S.*, 1923, 147-9, records the discovery of a second (I) stele of Sethos I, dated in his first year; it appears to give the Egyptian name of the citadel of Bethshan and the names of several Palestinian tribes; there is also a stele of Ramesses II.

PETRA. PILCHER, *A giti weight from Petra*, in *Pal. Expl. F., Qu. St.*, 1922, reviewed in *Ancient Egypt*, 1922, 58-59.

ASKALON. PHYTHIAN ADAMS obtained clear evidence that the Philistines introduced a special form of 2-handled bowl which characterises their stratum; he traces this from across the Levant to Greece and

the Balkans, thus gaining a new light on the migrations of the Peoples of the Sea and the Philistines; the armour of Goliath fits with that of the heroes in Homer. *Philistine origins* in *Brit. Sch. of Arch. in Jerus., Bulletin*, no. 3, pp. 20-27, cf. id., *Report on the stratification of Askalon* in *Pal. Expl. F., Qu. St.*, 1923, 60-84.

GAZA. Results of systematic sounding by trenches in this great site, and the historical conclusions to be drawn from them, id., *Reports on Soundings at Gaza*, and the *Problem of Deserted Gaza*, op. cit., 1923, 11-36.

THUREAU-DANGIN publishes eight 'Amarna tablets recently acquired by the Louvre, from the original find. *Nouvelles lettres d'el Amarna* in *Rev. d'Assyriologie*, 1922, xix, no. 2, 91-108. The most important of them is the only complete example of an order addressed by Pharaoh to one of his vassals, namely to Indar-uta, chief of Aksaph, which perhaps lay near the plain of Esdraelon; a small tablet at Berlin is evidently the humble and obedient reply of Indar-uta to a similar letter, id., *Une lettre d'Aménophis (III ou IV)*, in *Recueil Champollion*, 377-382.

OLMSTEAD writes the connected history of Babylonians, Assyrians, Mitannians and Egyptians, *Near-East problems in the Second Pre-Christian Millennium*, in *Journal*, viii, 223-232; SAYCE, *The geographical position of Arzawa*, ibid., 233-4; id., note on *The source of lapis lazuli* (Assyrian Dapara equated with Egyptian Tefrer), ibid., 285; id., translations of recently published letters in Babylonian from Boghaz-Keui: visit of a son of the Hittite king to Ramesses II in Egypt; recording the request of Dakhamun widow of Tutankhamun(?) to the Hittite king to send one of his sons to be her husband and rule Egypt; request for an Egyptian physician; letter of Ramesses II to queen Pudukhipa; to the Hittite king from an ambassador(?) of Ramesses II. *Texts from the Hittite capital relating to Egypt* in *Ancient Egypt*, 1922, 65-70.

LUCKENBILL discusses Hittite names met with in Egyptian texts, *On some "Hittite" proper names*, in *Am. Journ. of Sem. Lang.*, xxxix, 63-65. So also HALL, who points out that Hittite names are often shortened in Egyptian, *The Egyptian transliteration of Hittite names*, in *Journal*, viii, 219-222. SAYCE writes *The decipherment of the Hittite hieroglyphic texts* in *J. Roy. As. Soc.*, 1922, 537-572. See also GARSTANG, *Notes on Hittite Political Geography, I. Arzawa*, in *Liverpool Annals of Archaeology*, x, 21-26.

HOGARTH publishes a number of seals, etc. in the Ashmolean Museum and the Metropolitan Museum, New York, the former including a cylinder from a grave of the Ethiopian period at Sanam (Napata), *Engraved Hittite objects*, in *Journal*, viii, 211-218; Sidney SMITH publishes *Babylonian cylinder seals from Egypt*, ibid., 207-210 and EMERY a seal of glazed steatite, apparently from Egypt, of Cypriote or Phoenician work copied from the late-Hittite (saec. 11-12) type of North Syria (*A new cylinder seal* in *Liverpool Annals*, ix, 65-66).

The fourth volume of PATON's *Early Egyptian records of travel* is reviewed by PEET in *Journal of Manchester Eg. and Or. Soc.*, x, 60-62 and by WRESZINSKI in *Or. Lit.-Zeit.*, xxvi, 111-112.

In *Tarkondemos*, fasc. 2, AUTRAN makes strange comparisons of Egyptian words with Greek, Semitic, etc. The first fascicule is unfavourably reviewed by SOMMER in *Or. Lit.-Zeit.*, xxvi, 381-2. His *Phéniciens* is reviewed by BREASTED in *Amer. J. of Sem. Lang.*, xxxviii, 142-9.

MERCER in the *Journal of the Society of Oriental Research*, vi, 134-152, gives an *Old-Testament Archaeological Bibliography for 1918-1921 inclusive*.

PEET has written a critical survey of the gains to Biblical history from Egyptology, showing the great difficulty of the problems presented and the unsatisfactory nature of most of the solutions proposed, *Egypt and the Old Testament*, reviewed by CALDERINI in *Aegyptus*, iv, 214-5.

ALBRIGHT ingeniously suggests that the description of the Garden of Eden points to a territory bordering on the Red Sea, Ethiopia, and the Nile with its tributaries, *The Location of the Garden of Eden*, in *Amer. J. of Sem. Lang.*, xxxix, 15-31.

GARDINER writing on *The Geography of the Exodus* in *Recueil Champollion*, 203-215, concludes that the narrative is unhistorical and the route fanciful, the description fitting very ill with geographical facts. The city of Rameses must be placed at Pelusium. MALLON, *Les Hébreux en Egypte*, is reviewed by SPIEGELBERG, who, accepting GARDINER's view, considers that the Sojourn is connected with the invasion of the Hyksos and that an historic background to the Exodus is provided by their expulsion, *Or. Lit.-Zeit.*, xxvi, 203-4. A work by J. S. GRIFFITHS, *The Exodus in the Light of Archaeology*, is reviewed in *Ancient Egypt*, 1923, 64.

The strange fancies of VÖLTER, *Die Patriarchen Israels im Licht der ägyptischen Mythologie*, are reviewed by BILABEL in *Or. Lit.-Zeit.*, xxv, 517-519; KREGLINGER, *La Religion d'Israël*, in *Ancient Egypt*, 1922, 124-5; and SALAMAN, *The racial origins of Jewish Types*, op. cit., 1923, 21-22.

The new and remarkably illuminating tablet of the Babylonian chronicle gives us the information that the Egyptian army was with the Assyrians in 616 on the Euphrates at Qablinu, supporting them against the Babylonians under Nabopolassar, only four years before the destruction of Nineveh which is now fixed

to the year 612. Ashur-uballit escaped with part of the Assyrian army to Harran and made it the capital of a new Assyrian kingdom, but was driven thence in 610 by the Scythians and Babylonians. In the following year the Egyptians again appear supporting the Assyrians in an unsuccessful attempt to recover Harran. Mr GADD considers that the policy of Psammetichus and Necho at this time was to uphold the Assyrian power as a bulwark against the dreaded Scythians. The notice in II Kings xiii, 29 that Pharaoh-nechoh king of Egypt went up against the king of Assyria to the river Euphrates, belonging to the year 609, should be corrected by substituting Babylonians and Medes (or Scythians) for Assyrians in accordance with Josephus' account. GADD, *The Fall of Nineveh, the newly discovered Babylonian chronicle*, no. 21901, in the British Museum.

MORITZ, in a long appendix to his large work *Arabien, Studien zur physikalischen und historischen Geographie des Landes*, deals with the question of Solomon's expedition for gold to Ophir, involving the question also of the situation of Punt. Ophir he puts in Arabia towards the south end of the east coast of the Red Sea whence gold has been obtained from the wadies since the days of Islam. MEINHOF compares Egyptian Punt with Swaheli *pwani* "the coast," *Afrikanische Worte in orientalischer Literatur*, in *Zeitschr. f. Eingeborenen-Sprachen*, xii, 305.

ECKENSTEIN, *A History of Sinai*, is reviewed by WRESZINSKI, *Or. Lit.-Zeit.*, xxvi, 59-62.

A complete edition which Dr COWLEY has been preparing for some years past of the texts of all known Aramaic papyri including the few fragments that survive of Ptolemaic (?) age, has now appeared under the title *Aramaic papyri of the Fifth Century B.C.* The introduction dwells especially on the importance of the Elephantine find for the history of the Jewish religion.

In the cliff on the east bank of the Nile opposite Oxyrhynchus Professor PETRIE discovered in 1922 a rock-cut tomb with the walls covered with remains of Aramaic inscriptions. After two visits, the second with M. LACAU and the photographer of the Cairo Museum, M. GIRON is able to give some account of this very remarkable but tantalising find. The tomb consists of a ruined vestibule with built roof and an inner rock-cut chamber the walls of which have remains of painted decoration that may be either of the Middle Kingdom or of Saite age: the Aramaic inscriptions are on these walls in red paint but have unhappily been almost effaced by decay of the stone, scratchings and graffiti. Seventeen different inscriptions can still be recognised and the names of "Tirhaqah king of Cush," Psammetichus and Pharaoh-Necho can be distinguished in them together with indications that some of the inscriptions had to do with burial. It is thus doubtful whether the tomb was made for an Aramaean (Jew?), or was an ancient one adopted by him. But it is more than probable that though the writing is perhaps some centuries later than Necho, the family had traditions in Egypt going back to the beginning of the seventh century B.C., *Note sur une tombe découverte près de Chek-Fadl par Monsieur Flinders Petrie et contenant des inscriptions araméennes*, in *Ancient Egypt*, 1923, 38-43. M. GIRON has now handed all of his materials over to Dr COWLEY.

Africa. DARESSY has identified three haematite axe-heads in the Cairo Museum as those given by GORDON Pacha from the land of the Nyam-nyam in the Sudan in 1886 concerning which a long report was presented by the Institut Egyptien, *Sur trois haches en minéral de fer*, in *Annales du Service*, xxii, 157-166.

PHILOLOGY.

NAVILLE has written an article, *La grammaire de Champollion*, in *Recueil Champollion*, 741-759, discussing the main features of the grammar and noting the effect of subsequent developments on the views expressed by CHAMPOLLION. NAVILLE's *L'évolution de la langue égyptienne et les langues sémitiques* is reviewed by T. G. ALLEN in *Amer. J. of Sem. Lang.*, xxxviii, 151.

MERCER's translation of ROEDER's grammar is reviewed by C. J. BALL in *Journal of Theological Studies*, xxiii, 439-445, and DRIOTON, *Cours de grammaire égyptienne*, by GRIFFITH in *Journal*, ix, 126-7.

LACAU establishes the rule that Eg. *nm* becomes Coptic *pa*, *Sur le nm (N) Égyptien devenant p (R) en Copte*, in *Recueil Champollion*, 721-731.

GOLENISCHIEFF appeals for more attention to the sequence and subordination of sentences in translating from Egyptian, *Quelques remarques sur la syntaxe égyptienne*, *ibid.*, 685-711.

A pamphlet has been printed in Prague by F. LEXA, *Comment se réclent les rapports entre les langues hamitiques sémitiques et la langue égyptienne dans la grammaire des pronoms personnels, des verbes, et dans les numéraux cardinaux 1-9*, consisting of five tables preceded by explanatory remarks with references to the principal works on the subject down to 1915.

Following on the recent elaborate work of SETHE, JÉQUIER briefly reviews the names of the numerals and suggests that the remarkably Semitic group from 6-9 replaced an older native 5+1, 5+2 etc. series

when (in prehistoric times) a new people penetrated into Egypt from the East who are known as the Shemsu-Hor. *Le système numérique en Égypte* in *Recueil Champollion*, 467-482.

MEINHOF reviewing this work points out the variety of ways in which African numeral-names are composed and the frequency of borrowed numerals in languages owing to trade, the latter a consideration not generally taken into account; he upholds the theory of a relationship of Egyptian with Semitic, *Zeitschr. f. Eingeborenen-Sprachen*, XIII, 314-318.




SOBHY writes on *Egyptian words remaining in modern use in Ancient Egypt*, 1922, 47-49.

The writing out of the MS. of the Berlin *Wörterbuch* is completed as far as *et* and *ten* in the two difficult *s*-letters. The collection of personal names, untouched since Hofmann was killed, is being worked out by TILL in Vienna. Friends in America, England and Sweden have contributed to the cost of the work. ERMAN, *Wörterbuch der ägyptischen Sprache*, in *Berlin Acad. Sitzb.*, 1923, p. xlviii. ERMAN describes the method and progress of the work in a long article, *Das Wörterbuch der ägyptischen Sprache*, in *Zeits. D. Morgent. Gesells.*, LXXVI, 72-84.

SPIEGELBERG reviews ERMAN-GRAPOW, *Ägyptisches Handwörterbuch*, in *Or. Lit.-Zeit.*, XXVI, 323-5.

DÉVAUD has printed as a doctoral thesis the first part of his work on Coptic etymologies in the course of which he reveals the true meaning of several hieroglyphic words, *Études d'étymologie copte*; reviewed by SPIEGELBERG in *Or. Lit.-Zeit.*, XXVI, 268-9.

SETHE illustrates by new examples the meaning of *n-nk* "belonging to me" and *nb tm* "Lord of all" in the Book of the Dead, *Misellen in Zeitschr. f. äg. Spr.*, LVIII, 53-54.

BOREUX discusses the literal meaning of *Les expressions*  *et* , i.e., "starboard!" "larboard!", probably abbreviations, in *Recueil Champollion*, 43-56. CHASSINAT, *Le mot*  *dans les textes médicaux*, *ibid.*, 447-465.

RANKE on the prenomen of Ramesses I in cuneiform, Riamasya the popular form of the name of Ramesses II (instead of the formal Riamasēša), the name of the crown-prince Set- (or Amen-) hikhopshef and other matters of great philological and historical interest from the Hittite archives, *Keilschriftliches in Zeitschr. f. äg. Spr.*, LVIII, 132-8. SPIEGELBERG, *Das hupima-Gefäß*, in *Or. Lit.-Zeit.*, XXVI, 312-313 = the lion-head rhyton of the Annals of Tuthmosis III, showing a peculiar accentuation of the word.

SPIEGELBERG on *as*, a remarkable title of a priest of Hathor, *Zeitschr. f. äg. Spr.*, LVIII, 56; the name Komoapis in demotic, the gods Kolanthes, Chespisichis, etc., *ibid.*, 155-7; *ebō* in Horapollo, *kam* "to wrap," *ibid.*, 157-8. SETHE, *Zu Ä. Z.*, 57, 88, note on various Greek names and titles in demotic, *ibid.*, 149-150.

LANGE, *Petites notes de critique et d'exégèse textuelles*, corrections of text etc. for Westcar, Sinuhe and Petersburg Pap. 1116B, in *Recueil Champollion*, 733-9.

PALAEOGRAPHY.

SOTTAS and DRIOTON have written an *Introduction à l'étude des hiéroglyphes* (adorned by a portrait of CHAMPOLLION). In it are explained the system of writing, the history of the decipherment in its various branches—hieroglyphic, hieratic and demotic, with examples and a list of signs.





SETHE has published the fourth volume (*Epigraphik*) of his *Altägyptische Pyramidentexte*, the chief part of which is a wonderfully detailed and precise study of the arrangement of hieroglyphic signs and words in each of the pyramids by the original scribes and masons and by the correctors, together with some other epigraphic details. The prodigiously long texts in each are written uniformly except that in the pyramid of Pepy I two original hands are distinguishable as well as numerous alterations, chiefly caused by the change from the first person to the third and the insertion of the royal cartouches. The importance of studying the rules of the scribes is obvious as a preliminary to restoring injured passages. Other epigraphic details such as the "killing" of animal signs after they had been engraved, and the scribal errors are also fully recorded.


MÖLLER's ingenious note on the signs for East and West has inspired SETHE to write a most important memoir on the Egyptian expressions and signs for these, tracing their history from the earliest times and reaching different results from MÖLLER. The oldest word for "right hand" is *yemen*, identical with the Semitic; very early another word *wam* appears, meaning "the eating hand," which seems to be radically distinct from the other and survived into Coptic. "Left hand" is expressed by a word meaning "evil," "decaying," "purulent." The essential part of the hieroglyph for "west" and "right hand" is a hawk on a standard, to which a feather is generally attached; that for "east" and "left hand" is a spear borne as

a standard with a cross-bar below the blade. These are in the first place the standards of the eastern and western halves of the Delta, a division which is referred to still in early historic times: subsequently the two standards were retained for two of the nomes of Lower Egypt, the IIIrd with capital Amu on the western border of the Delta, and the XIVth on the eastern border with capital Sile (now on the Suez Canal).

From all this SETHE draws certain inferences as to the earliest history of Egypt. Presumably Amu and Sile were the seats of power when the Delta was divided into two kingdoms, east and west, the former connected with Syria. Osiris was probably the god of the eastern Delta, brought from Syria by Semites. The hawk-god Horus of the west triumphed over the east and became the royal deity of the kingdom of Lower Egypt, when Seth was corresponding god of that of Upper Egypt. After the prehistoric conquest of the south by the north, when Heliopolis was the capital, Horus preceded Seth in the royal titles; and when the united kingdom again was split into Upper and Lower Egypt Horus was the state-god of both capitals—Hierakonpolis and Buto. *Die ägyptische Ausdrücke für rechts und links und die Hieroglyphenzeichen für Westen und Osten* (Nachrichten of the K. G. d. W. zu Göttingen, Phil.-Hist. Kl., 1922).

The same scholar upholds his former reading of the word "make," the spelling of which with the eye is due directly to the homophonous word for the latter, and inclines to think that the spelling of the word for "grapes" has a more or less independent origin. *Die Hieroglyphe des Auges und das Wort Itert* "Weintraube" in *Zeitschr. f. äg. Spr.*, LVIII, 46-47.

SPIEGELBERG, the *mdw* stick  represents the fire-borer itself, the *sa*  the entire fire-apparatus, *Zeitschr. f. äg. Spr.*, LVIII, 150-1;  as determinative of a fabric, *ibid.*, 151;  spells the kite in late hieroglyphic as recorded by Horapollo, but (as SETHE points out) this is a false value given by the priests to the sign, the group having earlier served for *mut*, the name for a weight in general, *ibid.*, 154.

ELLIS, *On the meaning of* , probably the title of a queen, not the name of a king. *Ancient Egypt*, 1922, 77.

RELIGION.

SCHARFF has published illustrations of the Egyptian deities in thirty-two photographic plates of figures from scenes or in the round from the Berlin collection, with a brief explanatory introduction, *Götter Ägyptens*.

Two parts of HOFFNER's *Fontes Historiae Religionis Aegyptiacae* have appeared, the first with extracts from 68 classical authors (Homer to Diodorus) in chronological order, the second representing forty (from Horace to Plutarch). This laborious work will be very useful, particularly when the third part with the indices has been published. The first part is favourably reviewed by WIEDEMANN in *Or. Lit.-Zeit.*, xxvi, 265-6.

In PAULY's *Realencyclopädie d. klass. Alterthums* (II^e Reihe) the article *Satis* is by ROEDER (15 columns), showing the curious identification of the Cataract goddess with the star-goddess Sothis, apparently through the similarity of names; that on *Seth* is by KES (27 columns). In ROSCHER's *Ausführliches Lexicon d. Gr. u. Röm. Mythologie* there are articles by ROEDER on *Sarapis* (33 columns) and *Totenbuch* (13 columns).

SCHNEIDER, after a brief discussion of the stages of religious development in the palaeolithic age, in which he recognises a cult of the sun-god, finds coincidences in myths current both in early Egypt and in early Babylonia, the common features of which he therefore attributes to the preceding neolithic age. *Die jungsteinzeitliche Sonnenreligion in ältesten Babylonien und Ägypten* (*Mitt. d. Vorderasiat. Ges.*, 1922, 3). This work is strongly criticised by WIEDEMANN in *Or. Lit.-Zeit.*, xxvi, 321-3.

BISSING, aided by KES, has published the first part of an elaborate study of the sculptured scenes from the Sun-temple of Dyn. V. at Abusir, comparing those of later temples (chiefly New Kingdom and Ptolemaic). The chapters deal successively with the Foundation of the temple, the inaugurating Procession, Deities in the scenes and inscriptions, the Procession of Upuaut, the sacrificial Dance, the delivery of the Offering to the priest, the final Festival at the throne, the Deposition from the throne in a carrying-chair, and the end of the Sed-festival. *Untersuchung zu den Reliefs aus dem Re-Heiligtum des Rathures*, I Teil (*Abh. d. Bayer. Ak.*, xxxi, 3 Abh.). The scenes themselves are issued at the same time, in another publication, see p. 206.

A. de BUCK, a pupil of BOESER, SETHE and ERMANN, has written a Leyden dissertation on the Egyptian ideas regarding the primeval hill or omphalos of the earth, an excellent piece of research in a new direction

into the mythological ideas of the Egyptians. The primaeval hill was claimed especially as the seat of the sun-god at Heliopolis, and the crowning of the king and his *sed*-festival were performed on a raised platform corresponding to that on which the sun first rose. *De Egyptische Voorstellingen betreffende den Oerhevel*, reviewed by WRESZINSKI in *Or. Lit.-Zeit.*, XXVI, 147-150.

SCHARFF's *Ägyptische Sonnenlieder* is reviewed by BONNET, *ibid.*, 59.

BLACKMAN has contributed to *Nature*, Apr. 14 and Apr. 21, 1923, two interesting articles (8 pp.), the one on the Heliopolitan cult of the sun and its influence in form and ritual on all the Egyptian temples, the other on the Aten-worship of Akhenaten and its derivation from the older Egyptian solar cult. The same scholar, in *A Study of the Liturgy celebrated in the temple of the Aton at el-Amarna* (*Recueil Champollion*, 505-527), collects material regarding the performance of the temple services from the tomb-scenes and other sources.

RUSCH, *Die Entwicklung der Himmelsgöttin Nut zu einer Totengottheit*, is reviewed by KEES in *Or. Lit.-Zeit.*, XXVI, 263.

KEES studies the pair of deities Horus and Seth shown in scenes of crowning and purification of the king, and other pairs of deities in similar connexions such as Horus and Thoth: their appearance in the religious texts, their residences, the confused developments mingling astronomical allegories with geographical positions, and their occurrence in the royal titles. KEES, *Horus und Seth als Götterpaar*, 1 Theil.

In a long article KEES finds no proof of the current reading Sepa for the bird-symbol of the XVIIIth nome of Upper Egypt. In the title of the funerary god Anubis "Lord of Sepa," Sepa is written with the nome-sign and must mean something like "district." A god Sepa (written with the sign of a millipede) was worshipped especially at or in the neighbourhood of Heliopolis; and Anubis of Sepa was widely worshipped and had a temple at Turah. As to the XVIIIth nome, the hawk god of its standard occurs as the usual hawk on a perch, but more often with its wings spread, and appears to be the same as the hawk on a kind of sacred bark in the name of Merenrê. This god appears to represent the east in some connexions. The religious centres and worships in and about the XVIIIth nome are also discussed here. *Anubis "Herr von Sepa" und der 18. oberägyptische Gau* in *Zeitschr. f. äg. Spr.*, LVIII, 79-101.

BOYLAN's work, *Thoth the Hermes of Egypt*, is reviewed in *Ancient Egypt*, 1923, 21, and by GRIFFITH in *Journal*, IX, 127.

An interesting forgery of a stela with the ram and goose of Amūn, evidently copied from a genuine original, is published by SPIEGELBERG in *Zeitschr. f. äg. Spr.*, LVIII, 158-160.

On the lion-god Mihōs of Leontopolis (Tell Mokdām), PERDRIZET, *Une fondation du temps de Ptolémée Épiphane, le temple du dieu lion, à Léontopolis*, in *Comptes Rendus*, 1922, 320-3.

SETHE supplements the lists of NEWBERRY and GAUTHIER of local forms of Sachmis-Bubastis on the well-known black statues, *Zu den Sachmet-Statuen Amenophis III.*, in *Zeitschr. f. äg. Spr.*, LVIII, 43-44.

DARESSY publishes a Ptolemaic door-lintel in Cairo showing a series of divinities armed with knives called "stabbers of Mut," found also at Xoïs and in a chamber on the roof of Denderah, *Sur une série de personnages mythologiques*, in *Ann. du Serv.*, XXI, 1-6. The god Heron on coins of the Diospolite nome is probably due to Thracian soldiery stationed there from Ptolemaic times onward; the names Boreasis, Karamike and Ophium in the Philae inscription of Cornelius Gallus are discussed, *id.*, *Le Dieu Hérôn sur les monnaies du nome Diospolite*, *ibid.*, 7-16.

SPIEGELBERG explains a well-known amulet in the British Museum, identifying Bait as a Grecised form of the Egyptian name of the hawk, *Der Gott Bait in dem Trinitäts-Amulett des Britischen Museums* in *Arch. f. Religionswiss.*, XXI, 225-7; points out that images of child-deities, e.g., Harpocrates and the young deified Berenice, were borne in the arms of priests as male nurses according to the testimony of Macrobius and the Egyptian monuments, *ibid.*, 228; and publishes a demotic invocation to Sobk of Tebtunis on a bell of Roman age, *Zeitschr. f. äg. Spr.*, LVIII, 153-4.

The Negative Confession is "an island of remarkably pure doctrine lost in an immense sea of magic"; it is first seen in Dyn. XVIII and was a new teaching which had little effect on the opinions of the mass, but some true adherents are recognisable by the sentiments expressed on their tomb stones. Such especially was Beki (Turin), and the teaching of Merikerê in its known form belongs to the same period and order of ideas. The old justice was that which was rewarded by the State, the new, after revolutions, was that which resided in the heart of man. DRIOTON, *Contrib. à l'étude du chapitre cxxv du Livre des Morts. Les confessions négatives*, in *Recueil Champollion*, 545-566. SPIEGELBERG points out that the famous Turin MS. in LEPSIUS' *Todtenbuch* must belong to the 2nd to 1st century B.C. by the evidence of a demotic note upon it, *Zeitschr. f. äg. Spr.*, LVIII, 152-3.

GRESSMANN has published an essay on the mystical rites annually performed in honour of Osiris at least in the later Egyptian and Hellenistic ages, with illustrations, *Tod und Auferstehung des Osiris nach Festbräuchen und Umzügen (Der Alte Orient, Bd. 23, 3 Heft)*.

WILKEN in the introduction to the first volume of his long-expected *Urkunden der Ptolemäerzeit (Ältere Funde)*, in which he publishes the papyri of the Serapeum, discusses the origin of Serapis, Serapis as worshipped at Alexandria and Memphis, the Serapeum of Memphis, its deities and inmates. SETHÉ in a lengthy review (*Göttingen Gelehrter Anzeiger*, 1922, 106-123) corrects as an Egyptologist some points which had been misunderstood by the papyrologist, showing that the laboratory of the Serapeum was utilised for embalming the Mnevis bull as well as Apis, upholds his view of the *καραχί* as a penal, not a religious, confinement, and adds some corrections to his translation of a demotic papyrus, copied by REVILLIOUT, due to SOTTAS' examination of the original.

E. S. THOMAS gives instances of a rite of re-birth from the skin or body of an animal widespread in the world, collects the evidence regarding the *teknu* in Egyptian tombs of Dyns. XII-XVIII and the scenes of the Sed-festival, and concludes that the *teknu* is a rite of re-birth from an animal-skin. *The Magic skin, a contribution to the study of the "Teknu," in Ancient Egypt*, 1923, 3-8, 46-56.

MISS BLACKMAN has recognised "corn-maidens" in certain unexplained details of harvest scenes published by N. de Garis DAVIES from Theban tombs. *Some occurrences of the corn-*arūsh* in ancient Egyptian tomb paintings*, in *Journal*, VIII, 235-240.

BÉNÉDITE points out the important part taken by symbolism in sculptures and paintings of religious figures and scenes, and would adopt a symbolic and not a direct interpretation of the animal-heads of deities, etc.; the bird carried in the king's hand in the scene of the royal race or dance was not a real bird but the sign of the spirit, *Signa verba, les jeux d'écriture dans l'image*, in *Recueil Champollion*, 23-42.

Egyptian sacrifices whether in temples or at tombs were rather banquets for the deities and the dead than propitiatory offerings, MERCER in *Jour. Soc. Or. Res.*, VII, 49-52.

OESTERLEY explains the significance of dancing on various occasions as occurring in the Old Testament with illustrations from Egypt in his interesting book *The Sacred Dance, a study in comparative folklore*.

SCIENCE, MATHEMATICS, ETC.

Writing on the new medical papyrus Prof. BREASTED tells us that its former owner Edwin SMITH went to Egypt about 1858 and lived at Luxor for many years: he was concerned also with the great Ebers Papyrus which was perhaps discovered at the same time. BREASTED discusses the age of the papyrus and gives the scheme of the "cases" and a table of the forty-eight cases preserved on the recto; he also describes briefly the incantations against pestilence and "the book of transforming an old man into a youth of twenty" on the verso. *The Edwin Smith Papyrus, some preliminary observations*, in *Recueil Champollion*, 385-429. Cf. S.R., *Médecine Égyptienne* in *Revue Archéologique*, XVI, 183-4.

LÖWIS, *Zahnerkrankungen und deren Behandlung im alten Ägypten (Sammlung v. Abhdlg. a. d. Zahnheilkunde, Heft 25)*, gives a brief survey of the literature: although there was much disease of the teeth and even royal mummies give evidence of agonising dental trouble, he fails to find any instance of dental surgery in mummies, etc. (such as occurs in Phoenicia and Etruria in the last centuries B.C.) or any sign of special dental practise in the medical papyri. A woman of the Christian period had teeth grooved, for adornment only, probably with a flake of carnelian.

RUFFER, *On the physical effects of consanguineous marriages in the royal families of Ancient Egypt*, is reviewed in *Ancient Egypt*, 1922, 126. SETHÉ contrasts the Greek estimate of ten lunar months for pregnancy with the Egyptian of nine calendar months, of which traces survived into Coptic, *Miselle* in *Zeitschr. f. äg. Spr.*, LVIII, 24.

MARRO writes on the psychology of the Ancient Egyptians, founding his remarks largely on an examination of skulls and other portions of the skeletons, *Sulla psicologia dell' antico Egitto*, in *Atti d. R. Acc. d. Scienze di Torino*, LV, 291-308. SORBY notes that a deformed cranium published as having been found at Tell el-'Amarnah has been traced to a Coptic cemetery near Fashn! *Journal*, IX, 117.

Mlle DAUTHEVILLE studies a remarkable reference on the stela of Ahmōse I to the dance of the ostrich "in the desert valleys" in the sunshine and mid-day heat, a subject pointed out to her by Prof. LORET. This dance, well-known to ostrich farmers, has not been noticed by the classical writers nor by travellers. *Danse d'austruche en l'honneur du Pharaon* in *Bulletin de l'Inst. Fr. Or.*, XX, 225-9. CARTER describes an

ostrakon of the New Kingdom from the Carnarvon excavations figuring a domesticated cock, with notes on the habitat of the Red Jungle-fowl in Further India and its domestication in China, India, Babylonia, Greece, etc. It appears however not to have been established in Egypt till after the New Kingdom, *An ostrakon depicting a Red Jungle-fowl (the earliest known drawing of the domestic cock)*, in *Journal*, ix, 1-4.

To HARTMANN we owe a study of ancient Egyptian agriculture in which also the wild economic flora and fauna are noticed, with lists in chronological order of representations on the monuments. *L'agriculture dans l'ancienne Égypte*.

LUTZ has published an illustrated monograph on *Viticulture and Brewing in the Ancient Orient*, dealing with the subject down to the Moslem prohibition. Half of the book is occupied by the use of wine and beer in daily life and in religion; Egypt takes the first place throughout as a source of information, but Babylonian inscriptions, classical, Jewish and other writings are also largely drawn upon. Reviewed critically by PEET in *Liverpool Annals of Archaeology*, x, 52-54. HROŽNY, *Das Getreide im alten Babylonien*, is reviewed by L. B. ELLIS in *Ancient Egypt*, 1923, 17-20. MOSSEI, *Sur l'origine du riz et l'histoire de sa culture en Égypte*, in *Bull. de l'Inst. d'Égypte*, iv, 25-34, considers that rice was introduced by the Arabs. DARESSY, *ibid.*, 35-37, *Le riz dans l'Égypte antique*, is disposed to agree: rice was known by its Arabic name to the Copts; but he quotes a description by Caylus (1752) of a bronze figure of Osiris with a layer of rice-straw beneath its gilt stucco covering which ought to be correct, but may be referred to African wild rice.

Professor LLORENSI ARTIGAS of Barcelona has written probably the first book connected with Egyptology in the Catalan language, *Les Pastes ceràmiques i els esmalts blaus de l'antic Egipte*. It is a report of a mission to Paris to examine technically the collections of Egyptian enamel. His report describes the blue glazes with the analyses by French chemists from standard works, and gives the recipes by which he himself has been able to reproduce them. Reviewed in *Ancient Egypt*, 1923, 23.

PILCHER describes the *Portable Sundial from Gezer* bearing the name of Merneptah in *Pal. Expl. F., Qu. St.* 1923, 85-89.

SIOLEY writes on *Ancient Egyptian Mathematics* in *Ancient Egypt*, 1922, 111-117. PEET explains some difficult reckonings, hitherto misunderstood, on two writing-tablets in the Cairo Museum, giving admirable examples of Egyptian arithmetical procedure. *Arithmetic in the Middle Kingdom*, in *Journal*, ix, 91-95.

BORCHARDT, *Gegen die Zahlenmystik an der Grossen Pyramide bei Gize*, is an instructive lecture on the pyramids called forth by a recent outbreak of mystical pyramid-theory in Germany, reviewed by PIEPER, *Or. Lit.-Zeit.*, xxvi, 269-271. A review of KLEPFISCH, *Die Cheopspyramide*, discussing its form and mathematical proportions, is in *Ancient Egypt*, 1922, 55-56.

LITERATURE.

ERMAN has printed an excellent collection of examples of Egyptian Literature—songs, stories and didactic works—of the Middle and New Kingdoms, with an introduction in which the development of literature, the learned scribe, poets and story-tellers, forms of poetry, writing and book-making are discussed, and, last not least, the degree to which Egyptian is now understood in spite of obscure language and often corrupt texts. The texts and extracts give a much fuller view of the different kinds of literature than is to be found elsewhere gathered in a single volume, and the translations are made both with the minute care that would be expected from such a master and close student of the language, and with the insight and charm which one is accustomed to in Prof. ERMAN's writings. *Die Literatur der Ägypter, Gedichte, Erzählungen und Lehrbücher aus dem 3. und 2. Jahrtausend v. Chr.*

For a new translation of *The Eloquent Peasant* with many new readings from a fresh collation of the originals we are indebted to Dr GARDINER. The story is short and simple, but is merely a vehicle for a series of nine magniloquent and inartistic speeches, abounding in difficulties for the translator. The known texts, three in number, are all of the Middle Kingdom, but a quotation from it on an ostrakon of the New Kingdom seems to show that it was still current in the Ramesside age. *Journal*, ix, 5-25.

PIEPER reviews FARINA, *Le aventure di Sinuhe, tradotto dall' antico Egiziano*, adding a note on Egyptian metrical form. *Or. Lit.-Zeit.*, xxvi, 112-114.

ALT suggests that the scribe who composed the Vatican inscription of the time of Darius was influenced by a phrase in the Story of Sinuhe, and that there is a reference to the Hyksos-people by name in that story, *Zwei Vermutungen zur Geschichte des Sinuhe*, in *Zeitschr. f. äg. Spr.*, LVIII, 48-50.

BUDGE describes an important text (since published, see above p. 208), in twenty-eight columns, apparently of Dyn. XXII, of "Instructions" as to behaviour, *The precepts of Life by Amen-em-apt, the son of Ka-nekht*, in *Recueil Champollion*, 431-446.

MERCER, *Egyptian Morals of the Empire* (in *Journal of the Soc. of Oriental Research*, 1921), is reviewed in *Ancient Egypt*, 1922, 61-62.

PIEPER considers that the folk-tales which compose the early history of Herodotus are really Egyptian and not Greek. He sees no reason why H.'s informants should not have been priests (for some priests must have known Greek at that time), and they told him what served for history among themselves. *Volksmärchen, Sage und Novelle bei Herodot und seine Zeitgenossen*, in *Or. Lit.-Zeit.*, xxvi, 101-6. H. LAST, *Albion's μακρόβιοι*, in *The Classical Quarterly*, xvii, 35-36, puts forward the excellent and apparently novel view that the epithet (Hdt. III 21) meant originally "long-bowed" being compounded with an Homeric word which fell into desuetude before the time of Herodotus, when consequently its meaning changed to "long-lived."

Isidore LÉVY, *Observations sur le papyrus Rhind*, 1, in *Recueil Champollion*, 611-616, finds Greek, not Egyptian, sentiment in the consolation of the deceased, and a Semitic word *māia* for "fountain" in this text which dates from 9 B.C.

REITZENSTEIN with the help of CRÖNERT and SPIEGELBERG identifies a papyrus in the British Museum as a fragment of a Greek translation of the Kufi-Story, i.e., the legend of the Cat (Tephenis) and the Monkey (Thoth) found in demotic in the Leyden Museum. The Greek preserves some small fragments from the lost beginning and substantial passages further on, enabling SPIEGELBERG to re-translate these portions with considerable improvement. The demotic is of the third century A.D., the Greek of the second or third, and it is the first example of a Greek translation of an Egyptian literary composition. *Die Griechische Tefnutlegende (Sitzb. d. Heidelberger Akad., Ph.-Hist. Kl., Abh. 2, 1923)*.

The great moral papyrus of Leyden acquired in 1895 and published in facsimile in 1899, with photographs in 1905, consists of no less than thirty-five columns, generally well preserved. A few columns are missing at the beginning (originally there must have been at least forty in all) and to them belong some fragments since obtained by Seymour de RICCI. The text was divided into twenty-five lessons, each consisting of a number of short sentences or proverbs; the introduction is unfortunately lost, but the whole work terminates with a good wish for the prosperity of the soul of Phib son of Zehep'en, who may therefore have been the compiler or scribe. The work appears to be called "the book of the King." Dr BOESER has now published a transliteration, translation and a full index of words which will greatly help towards an understanding of these by no means easy proverbs. The RICCI fragments are reproduced in an excellent photograph. *Transkription und Uebersetzung des Papyrus Insinger (Oudheidkundige Mededeelingen uit's Rijksmuseum van Oudheden te Leiden, N. Reeks, III)*.

LAW.

The late Georg MÜLLER noted evidence of the existence of a tax on asses, as in Hellenistic times; in a papyrus of Dyn. XIX. *Ägyptologische Randbemerkungen*, in *Archiv f. Papyrusforschung*, vii, 65.

On the price of hiring slaves in Dyn. XVIII, noting that the wage for "one day" must mean one day per month. PETRIE, *Ancient Egypt*, 1922, 107.

ARCHAEOLOGY.

G. W. MURRAY states that his finds of implements in the eastern desert, on hill tops and terraces, had no suggestion of marking places of manufacture but rather of camps. Although the surface relief of the desert was in their day much as now, there then existed a fertile humus which has been carried away by the winds etc., *Egypt: The Palaeolithic Age. A Note on Dr Seligman's Paper*, in *Man*, 1923, no. 13.

J. DE MORGAN confesses that he has failed to find any evidence of a true neolithic industry (as opposed to chalcolithic) in any part of the Near East; even the Fayoum "arrowheads" are chalcolithic harpoons, and the microlithic flints of Helwān must be of the same horizon, *L'Industrie néolithique et le proche Orient*, in *Syria*, iv, 23-27; reviewing VIGNARD, *Une station aurignacienne à Nag-Hamadi* and *Stations paléolithiques de la carrière d'Abou-el-Nour*, he considers that these finds are no exception, *L'Anthropologie*, xxxii, 290-2, 544-546.

Petroglyphs, figures of animals etc., usually hammered into the rock with stone rather than with iron instruments, are found widely where conditions are suitable, in most tropical rocky countries and in China; the so-called "Bushmen drawings" in South Africa are of the same character. LUSCHAN, *Über Petroglyphen*

bei Assuan und bei Demir-kapo, publishing examples from Aswan and from near Baghdad, in *Zeits. f. Ethnologie*, 1922.

The second fascicule of the *Bulletin* of the Inst. Fr. d'Arch. Or., XIX, completes the articles under the letter a in JÉQUIER's *Matériaux pour servir à l'établissement d'un dictionnaire d'archéologie Égyptienne* (including *ap-re* the opening of the mouth, in great detail, etc.) with hieroglyphic index.

Eight livraisons of CURTIUS' *Die antike Kunst* (in BURGER-BRINCKMANN, *Handbuch der Kunstwissenschaft*) are devoted to Egyptian art and are reviewed by PEET, who quotes the author's saying "The roots of European art lie in Egypt," *Liverpool Annals of Archaeology*, IX, 125.

SCHÄFER has published a new edition of his *Von ägyptischer Kunst, besonders der Zeichenkunst*, in one volume. There are practically no new paragraphs but many small changes and additions, and many figures formerly in the plates are now in the text; the pages have thus increased from 250 to 300. SCHÄFER here accepts the chronology of BORCHARDT for the Old Kingdom, but with reservation. This work is reviewed by WRZESINSKI in *Or. Lit.-Zeit.*, XXVI, 202-3. A separate article *Flachbild und Rundbild in der ägyptischen Kunst*, in the *Zeitschr. f. äg. Spr.*, LVIII, 138-149, supplies practically a new chapter to the book; in it as a starting-point SCHÄFER shows that the Egyptian sculptor in the round, like the early Greek, conceived his figure as consisting of four views (front, back and two sides) at right angles to each other, and sketched it accordingly on his rectangular block of stone before applying the chisel; his skill showed itself in the degree of completeness with which he united these views into a consistent figure in the round. It is indeed impossible for us, who have been brought up to see in perspective, to produce the spirit of the work of an Egyptian artist. SCHÄFER's *Grundlagen der ägyptischen Rundbildnerei und ihre Verwandtschaft mit denen der Flachbildnerei* (*Alte Orient*, 23 Bd., 4 Heft) repeats in more general terms the argument of this article. SCHÄFER's *Das Bildnis im alten Ägypten* is reviewed by BISSING in *Or. Lit.-Zeit.*, XXV, 396-7.

Professor CAPART's *Egyptian Art* translated by W. R. DAWSON is reviewed in *Ancient Egypt*, 1923, 63; his *Leçons sur l'art égyptien* is reviewed by WRZESINSKI in *Or. Lit.-Zeit.*, XXVI, 109-111, and his larger work *L'Art égyptien, I Architecture*, by PIEPER, *ibid.*, 325-6, and by DAVIES in *Journal*, IX, 121-3.

SPELEERS has printed a full syllabus of his lectures of 1923 on Egyptian Art at Ghent, *Syllabus du cours sur les origines de l'art et l'histoire de l'art oriental antique* (3^{me} Partie), *L'Égypte*.

BOUSSAC observes that in two tombs of Dyn. XIX or XX at Thebes there are remarkable examples of impressionist painting, free-hand and without the traditional resort to a squared ground, *Comptes Rendus*, 1923, 50-51.

Frau KLEBS has published a systematic catalogue of scenes of the Middle Kingdom, with an introduction describing the classes of monuments on which they occur, and a supplementary list of representations of the different kings and deities, *Die Reliefs und Malereien des Mittleren Reiches*; this will be of great value for reference; reviewed by CALDERINI, *Aegyptus*, IV, 212. The corresponding volume on the Old Kingdom representations, published in 1915, is briefly reviewed by WRZESINSKI in *Or. Lit.-Zeit.*, XXVI, 262-3.

WRZESINSKI's valuable *Atlas zur altägyptischen Kulturgeschichte*, of which five livraisons had appeared previously, has been completed during the last year by the issue of twelve more parts making 424 plates in all with list, and index of Theban graves and other sources. The early plates were a very elaborate mixture of collotypes, figures and description: the later ones are greatly simplified in arrangement. The subjects are taken chiefly from the Theban tombs; many are the originals (now more or less injured) from which WILKINSON, ROSELLINI, PRISSE and others made their drawings in the first half of last century. The photographs are beautifully reproduced, and the importance of the collection cannot be exaggerated. The brief Preface explains that, the original scheme having been modified, the photographs are issued only with descriptive letterpress; the illustrative figures which were to have been inserted in the letterpress are now to be collected in a typological appendix to the *Atlas* with an index to the whole. Moreover a second part of the *Atlas* is in preparation to contain the principal photographic material gathered by Ed. MEYER's commission under the late Max BURCHARDT for investigating the subject of foreign peoples on Egyptian monuments. The work generally is reviewed by KARO in *Deutsche Literaturzeitung*, Feb.-March 1923, the first six parts by PIEPER in *Or. Lit.-Zeit.*, XXVI, 382-4, and the first fourteen by CALDERINI in *Aegyptus*, IV, 213-214.

Waldemar SCHMIDT points out that Nestor L'HÔTE figured and described a plain granite sarcophagus, the lid of which, like that of Menkaure's, was fixed on by drop-pins, in the central one of the three small pyramids in front of the Third Pyramid; presumably therefore the sarcophagus belonged to the queen of Menkaure, *Le sarcophage du roi Mykérinos et celui de la reine*, in *Journal Asiatique*, XI^e S., t. XX, 290-1.

RUBCH classifies the funerary stelae of the Old Kingdom chronologically by form and inscription, with useful reference-tables, *Die Entwicklung der Grabstein-formen im Alten Reich*, in *Zeitschr. f. äg. Spr.*, LVIII, 101-124.

MÖLLER has illustrated a Greek will, in which the testator provides for a pyramid at his grave, by PETRIE's finds of miniature brick pyramids at Hawārah, *Ägyptologische Randbemerkungen*, in *Archiv f. Papyrusforschung*, VII, 66.

Mrs CROWFOOT has succeeded in weaving an exact imitation of the girdle of Ramesses III on a very simple horizontal loom copied from those of Ancient Egypt and still used in the Sudan. There is no evidence for the existence of tablet-weaving in Egypt (as supposed by JÉQUIER and van GENNEP) except doubtfully for Coptic times, and to reproduce the girdle by tablet-weaving would be impracticable. G. M. CROWFOOT and H. LING ROTH, *Were the Ancient Egyptians conversant with tablet-weaving* (Brettchenweberei, Tissage aux Cartons)? in *Liverpool Annals of Archaeology*, x, 7-20.

EDGERTON has written an important article on *Ancient Egyptian Ships and Shipping* in *Amer. J. of Sem. Lang.*, XXXIX, 109-135, discussing the prehistoric representations of wooden boats and the construction of Egyptian wooden craft down to the time of Herodotus, with some valuable illustrations. BUSLEY's richly illustrated monograph, *Die Entwicklung des Segelschiffes erläutert an sechzehn Modellen des deutschen Museums in München*, which deals largely with Ancient Egyptian sailing craft, is strongly criticised by KÖSTER in *Or. Lit.-Zeit.*, XXVI, 55-56.

CAPART is the author of a pamphlet containing a concise sketch of the fabric and style of Egyptian pottery at different periods with a bibliography for each period, and for each reign in Dyn. XVIII, *Union Académique internationale, Classification des céramiques antiques: céramique égyptienne*.

JUNKER's *Der Nubische Ursprung der sogenannten Tell el-Jahudiye-Vasen* is reviewed by NAVILLE in a special article, *La Poterie Nubienne*, in *Revue Archéologique*, XVI, 48-54, and by PIEPER in *Or. Lit.-Zeit.*, XXVI, 9-11.

The Graf collection of mummy-portraits, now at Berlin and elsewhere, is published by BUBERL, *Mumien-bildnisse der Sammlung Th. Graf*, with fifty photographic reproductions.

PERDRIZET interprets a fine and perfect mosaic with inscriptions of the third or fourth century A.D. which was found by CLÉDAT at Shêkh Zawêdeh, on the coast towards El-'Arish, *La mosaïque de Cheikh Zoudeh*, in *Recueil Champollion*, 93-100.

In various journals the following articles on archaeological subjects occur:—

Journal of Egyptian Archaeology, VIII, 201-6, HORNBLLOWER, *Some Hyksos plaques and scarabs*, publishes a remarkable plaque and cylinders and seals from his own collection and the British Museum, the types of which he attributes to Syrian influence; also a fine bronze mirror. VIII, 285, note by HALL on *Scarabs from Lisht*. IX, 26-33, WAINWRIGHT, *The Red Crown in Early Prehistoric Times*, has made the important discovery of a Lower Egyptian crown figured on a jar of the earliest pre-dynastic period from Nakādah. Its occurrence at this period so far south in Upper Egypt suggests three possible explanations:—that the crown is either (1) the symbol of the kingdom of Sais which may then have been the leading power in Egypt or (2) the symbol of Neith; her worshippers may have been then both in Upper and in Lower Egypt, though they afterwards died out in Upper Egypt, or (3) a Libyan badge, the Libyans having held Upper and Lower Egypt alike. IX, 78-79, Mrs GRIFFITH, *Akhenaten and the Hittites*, argues in support of GIUFFRIDA-RUGGIERI's suggestion that the Tell el-'Amarnah type of head is a stylistic copy of the artificially deformed heads of the Hittites. IX, 80, HALL, *A wooden figure of an old man* in hard wood from a Middle Kingdom model group.

Ancient Egypt, 1922, 54, review of KENDRICK, *Catalogue of Textiles from Egypt*, II, 1922, 71-74, WINLOCK, *Heddle-jacks of Middle Kingdom looms*, proving that certain mysterious wooden objects are jacks for supporting the heddle-rod at every alternate shot of the shuttle. 1922, 75-76, MACE, *Loom weights in Egypt*, are found at Lisht as they were at Kahûn and point to the use of a vertical loom not represented in the sculptures. This may have been identical with the Greek loom, but probably resembled a more practical variety still in use with the natives of Lisht. 1922, 100-102, ENGELBACH, *Was the Constantinople obelisk part of the 108-cubit obelisk of Hatshepsout?* discusses the possibility of transporting an obelisk of this size without its breaking in two, and considers that it would have been an unparalleled feat. 1922, 126, review of FECHHEIMER, *Die Plastik der Ägypter*. 1922, 127-8, *Notes and News*, on the tomb of Tutankhamûn, the couches must be Mesopotamian; a museum needed at Kurnah. 1923, 1-2, PETRIE, *A portrait*

of *Menkaura*, Alabaster bust with hawk feathering and wings at the back, an early form of *bai*-statue; also a very ancient measure of capacity of 20.8 cubic inches probably of the age of Khufu and dedicated to Horus of Edfu. 1923, 60-62, ENGELBACH, *The obelisks of Pylon VII at Karnak*, criticises PILLER's estimate of their height (46 metres) as excessive and founded on a wrong principle; also corrects an error in his own paper on the Constantinople obelisk (above).

Metropolitan Museum (New York) *Bulletin* xvii, 226-234. Two granite statues of Meneptah from Luxor, with a lively account of the Pharaoh, xvii, 267-8, *Recent Egyptian acquisitions*, Statues of Sethos I and Meneptah, and antiquities from Thebes and Lisht.

New York Historical Society, Quarterly Bulletin, 1923, 1-9. Mrs C. R. WILLIAMS, *Material bearing on the new discoveries in Egypt*, chariot-wheel found at Dahshûr with shafts for a single animal, also a head-rest, etc., of Dyn. XVIII.

Berliner Museen, xliii, 73-75. SCHRÖDER, *Helme und Panzer aus Krokodilhaut*. Helmet and cuirass from Egypt of uncertain date, very simply made of scales of crocodile-skin. xliii, 1-5, SCHARFF, *Eine neue Isisbrunne*, with fine features evidently representing an early Ptolemaic queen; examples of Isis suckling Horus are figured from the Old and Middle Kingdoms, but curiously enough none are known of the New Kingdom.

Annales du Service des Antiquités de l'Égypte. xxi, 63-73, ENGELBACH, *Report on the inspectorate of Upper Egypt from April 1920 to March 1921*, scarab, amulet of Tirhakah, bronze dipper, etc., from Thebes. xxi, 129-137, DARESSY, *La barque d'or du roi Kames*, makes a corrected restoration of the famous boat as a war-canoe with mast and a soldier in the protected look-out at the bows. xxi, 137, id., *Sur une empreinte de sceau*, successfully interprets an official seal from the find of royal mummies at Dér el-Bahri. xxii, 17-32, id., *Un casse-tête préhistorique en bois de Gébelen*, ascertains the provenance of a wooden club in the Cairo museum with interesting designs engraved upon it.

RICCI reviews MOGENSEN, *Mastaba égyptien de la glyptothèque Ny-Carlsberg*, in *Revue Archéologique*, xv, 358-360.

BOESER, *Mumiensärge des Neuen Reichs, 4. Serie*, is reviewed by RANKE, *Or. Lit.-Zeit.*, xxvi, 108-9.

LUON has published a selection of the larger objects in the Egyptian collections at Upsala and Stockholm—sculptures, coffins, canopic vases, etc., on twenty-five plates. *Ausgewählte Denkmäler aus ägyptischen Sammlungen in Schweden*, reviewed in *Journal*, ix, 128, and by WRESZINSKI, *Or. Lit.-Zeit.*, xxvi, 260-2.

The finest specimens of Egyptian art in stone, bronze and wood belonging to the FOUQUET collection are published luxuriously by CHASSINAT on eighteen photographic plates with descriptions, *Les antiquités égyptiennes de la collection Fouquet*.

An exhibition was held in July at the Victoria and Albert Museum of eighty-four facsimiles of wall paintings from the Theban tombs drawn by Mrs de Garis DAVIES, and lent by Dr GARDINER, for which an official guide was printed.

An interesting collection of Egyptian antiquities made by the Hon. Robert CURZON on his travels in 1833 was dispersed by Messrs Sotheby and Wilkinson on Nov. 2, 1922; another sale of Egyptian antiquities including choice specimens of prehistoric age, collected by the late Rev. Randolph BERENS, was held by the same firm on 18-19 June 1923.

PERSONAL.

The tragic death of Lord CARNARVON has called forth obituary notices by our President, Sir J. G. MAXWELL, *George Edward Stanhope Molyneux Herbert, Fifth Earl of Carnarvon*, in *Journal*, ix, 114-115, by E[lihu] R[oot], *Lord Carnarvon*, noting his long-continued friendly relations with the Museum, in *Metrop. Mus. Bulletin*, xviii, 115-116, and by Prof. BRECCIA, *La mort de Lord Carnarvon*, in *Bull. de la Soc. Arch. d'Alex.*, v, 187-9.

Obituary notices have appeared of F. LEGGE, who died in November 1922 and had written on Egyptology since 1897, by R. Campbell THOMPSON in *J. R. Asiatic Soc.*, 1923, 151-2; of W. Harry RYLANDS, secretary of the Society of Biblical Archaeology from 1878-1892, by F. LEGGE, *op. cit.*, 1922, 637-640, also, unsigned, in *Pal. Expl. F., Qu. St.* 1923, 1.

The death took place on 6 Aug. 1923 of Auguste BAILLET, Egyptologist and father of an Egyptologist, at the ripe age of 88. Born in 1834, he wrote his first essay on Egyptian matters in 1861 and afterwards contributed many articles to the Egyptological journals and the *Mémoires de la Société d'Orléans*. Most of his work has been already collected in two volumes of the *Bibliothèque Égyptologique* published in 1905 with a biographical notice by his son Professor Jules BAILLET.

The death is also reported of Ahmed Bey KAMAL, who retired after many years service in the Cairo Museum and was only recently appointed Professor of Egyptian in the University there.

BASSET in *Journal Asiatique*, XI^e S., t. XX, 310, publishes a list furnished by a friend in Petrograd of Russian Orientalists who perished in 1918-1922, sixteen in number. Amongst them are Oscar LEMM, the Coptic scholar, 3 June 1918; Jean VOLKOV, Egyptologist, 16 Oct. 1919; Boris TOURAIEV, Ethiopic scholar and Egyptologist, 23 July 1920.

CORDIER, a colleague of MASPERO in the Académie des Inscriptions, has compiled a *Bibliographie des œuvres de Gaston Maspero* with portrait as in the prime of life, short biography, an extraordinarily complete bibliography, including writings for the Press, reviews, etc., and references to reviews of Maspero's works, and a useful index.

In regard to CHAMPOLLION we have from M. NAVILLE, *Champollion*, a sketch of his life in 30 pages, from M. BÉNÉDITE an article on *Le déchiffrement des hiéroglyphes*, in *Revue Archéologique*, XVI, 176-183. CATTAUI Bey of Cairo has printed a short popular account in 20 pages of the decipherment of hieroglyphics, *Champollion et le déchiffrement des hiéroglyphes*, which has already reached a second edition. A *Recueil d'études égyptologiques dédiées à la mémoire de Jean-François Champollion à l'occasion du centenaire de la lettre à M. Dacier relative à l'alphabet des hiéroglyphes phonétiques lue à l'Académie des Inscriptions et Belles-Lettres le 27 Septembre 1822* has been published with the portrait of 1824 as frontispiece. This contains a calendar of letters of and relating to Champollion belonging to the Duc de BLACAS to whom CHAMPOLLION owed his chief opportunities of successful work, L. de BLACAS, *Inventaire analytique de quelques lettres nouvelles de Ch. le J., etc.*, pp. 1-20; an article by CAPART, *Champollion et l'art égyptien*: CHAMPOLLION in his short time of acquaintance with original monuments was occupied entirely with the copying and decipherment of inscriptions, and could only give his opinion on Egyptian art incidentally. That he appreciated it however with a sound judgment is clear from his letters; not only did he condemn the false ideas held concerning the art of Egypt and the caricatures published by French and English travellers and savants, but he extolled the perfection of the native Pharaonic style which was sadly decadent in the Ptolemaic and Roman periods, pp. 57-73; and an *Essai de bibliographie de Champollion le Jeune (1790-1832)* by S. de RICCI, pp. 763-784, together with many Egyptological contributions which are noted above as being in *Recueil Champollion*. The Collection is reviewed by CALDERINI, *Aegyptus*, IV, 209-211.

LAGIER gives a lively account of the disputes over the age of the zodiac of Denderah which threatened to upset the teaching of the Church in regard to the early history of the world, until CHAMPOLLION proved that it belonged to the time of the Roman Empire instead of to a remote age B.C. *La Querelle des Zodiacs* in *Revue des questions scientifiques*, 1923, 5-28.

A note of the death of Fräulein HARTLEBEN, the biographer of CHAMPOLLION, is in *Journal*, VIII, 285-6.

GARRIELI, *A proposito del centenario dei geroglifici e per Ippolito Rosellini*, in *Aegyptus*, IV, 186-9, proposes that the most important of ROSELLINI's MSS. at Pisa and especially the journal of the visit to Egypt with CHAMPOLLION should be published, and meanwhile gives a list of his published letters. The part which ROSELLINI played in the early progress of Egyptology seems to be insufficiently appreciated at the present time.

M. LACROIX, perpetual secretary of the French Académie des Sciences, has found the journal and reports of DOLOMIEU, a distinguished and unfortunate mineralogist who took part in the early stages of Napoleon's Commission d'Égypte, but was captured on his return journey and long kept a prisoner under wretched conditions in Malta. He explored Alexandria and parts of the Delta, and his observations on the antiquities are interesting and remarkably precise, as might be expected from such a naturalist, without perhaps adding to our information. M. LACROIX sent these documents which were in the possession of the family to the Egyptian Institute, and M. DARESSY publishes them with a valuable introduction and notes, making a memoir of 150 pp. with a map. The most important sections are notes on Alexandria, constitution of the soil and causes of the destruction of monuments, agriculture in Lower Egypt, and the Nilometer on Rôdah Island. As being amongst the earliest of any extensive observations these are all very interesting and very remarkable. DARESSY, *Dolomieu en Égypte (30 Juin 1798-10 Mars 1799)*, forming T. III of *Mémoires* of the Inst. d'Égypte.

MORET has succeeded to CHAMPOLLION's chair of Egyptology at the Collège de France, DÉVAUD has succeeded HESS as Professor of Oriental Languages in the Catholic University of Fribourg, Dr Ludlow S. BULL of Yale and Chicago, a pupil of Professor BREASTED, has received an appointment in the New York Metropolitan Museum especially to study the inscriptions, *Bulletin*, XVII, 244. In Germany Professor

ERMAN has retired from the Professorship of Egyptology in Berlin and Professor SETHE of Göttingen is to succeed him. Freiherr von BISSING has left the University of Munich and has accepted the Professorship of Oriental Archaeology in the University of Utrecht; his inaugural lecture, *Die Bedeutung der orientalischen Kunstgeschichte für die allgemeine Kunstgeschichte*, sketches the growth of knowledge of oriental art and of its history, with indications of what Ancient Greece and the modern world owe to it. Professor SPIEGELBERG formerly of Strasbourg and now in Heidelberg is to succeed BISSING at Munich. At Cairo M. DAHESST has retired from the secretaryship of the Service des Antiquités and Mr QUIBELL takes his place.

Steps are being taken to institute a gold medal in the University of London to be called the Petrie Medal in Archaeology; this medal is to be awarded triennially for the most distinguished work in the subject. Contributions should be addressed to Professor Ernest Gardner at University College.

The address of Dr S. A. B. MERCER, editor of the *Journal of the Society of Oriental Research*, hitherto at Gambier, Ohio, is now to be at Trinity College, Toronto, Ontario, Canada.

BIBLIOGRAPHY 1922-1923: CHRISTIAN EGYPT

By DE LACY O'LEARY, D.D.

The previous list¹ endeavoured to bring down the bibliography of Christian Egypt from 1918 to 1922. Unfortunately there were several omissions which are however rectified in the present pages which endeavour to carry on the bibliography into 1923. In various cases periodicals have not actually appeared until some time after the date given as that of issue, and in many cases there has been considerable delay before copies could be procured. It is pleasant to note that the *Byzantinische Zeitschrift* appears again, though the new number does not contain any material with direct bearing upon Egypt.

Again, my sincere thanks are due to Mr W. E. CRUM and to others who have assisted me in the preparation of this bibliography.

I. BIBLICAL.

A. VASCHALDE has continued and completed his bibliography of printed editions of the Coptic Bible and portions thereof², and this has been reviewed by Mgr. HEBBELYNCK³.

Passages from Job, Psalms, Isaiah, St John, Acts, Corinthians, and Galatians appear in the Coptic texts edited by CRUM in "Wadi Sarga Coptic and Greek texts"⁴.

In 1921 I. F. RHODE published an account of the Arabic versions of the Pentateuch used in the Egyptian Church, a study in manuscripts of the 9-17th centuries⁵.

Mgr. HEBBELYNCK has published the text of the Borgia fragment containing Romans iii, 13^b-v, 9^a⁶.

This fragment, now at Naples, was used by Horner in his "Coptic Version of the New Testament Sahidic," but the text is now given in full and eight additions or corrections are proposed to the variants given in the *apparatus criticus* of Horner's edition.

The same writer gives an Akhmimic text of 1 Cor. xv, 41-45, 53-54: xvi, 6-9, 16-20 from Copte 129, 11 of the Bib. Nat., part of the same codex as that at Rome published by Zoega and Engelbreth, and the Cairo fragments published by M. CHASSINAT in 1902⁷.

Vol. vi of Horner's Sahidic New Testament has been reviewed by F. M. ABEL⁸ and by H. L.⁹ Prof. DEVAUD is preparing a critical edition of the Bohairic Pentateuch using as basis the important Vatican MS. ignored by Lagarde.

The newly published Vol. xv of the *Oxyrhynchus Papyri*¹⁰ contains three Biblical fragments. One of these (no. 1779) of the 4th cent. gives three verses of Psalm i; another (no. 1780) of the 4th cent. gives St John viii, 14-22; and a third (no. 1781) of the 3rd cent., a leaf of the same codex as P. Oxy. 208 (= P. Lond. 1782), contains St John xvi, 14-24.

In the *Times* for 2-7-23 Sir W. FLINDERS PETRIE describes his discovery of a new text of St John's Gospel which he regards as of a type intermediate between the Vatican and Sinaitic codices and so of the "neutral" class: this, he considers, will be decisive as to the nature of the Greek text first accepted in Egypt. The MS. has been on exhibition at University College in Gower Street and proves to be in Akhmimic and not in Sahidic as at first supposed: it is believed to be of the 4th cent. Its publication and detailed examination will be awaited with interest.

¹ *Journal* (1922), 174-186.

² VASCHALDE: *Ce qui a été publié des versions coptes de la bible* in *Rev. Bib.*, xxxi (1921), 81-88, 234-258.

³ In *Muséon*, xxxv (1922), 139-140.

⁴ CRUM, W. E. and BELL, H. I.: *Wadi Sarga Coptic and Greek texts with an Introduction by R. Campbell Thompson*. *Coptica* III. Copenhagen (1922), xix + 233, cf. under (VI) below. The Coptic texts by Crum, the Greek texts by Bell.

⁵ RHODE, I. F.: *Arabic versions of the Pentateuch in the Church of Egypt*. St Louis, Mo. (1921), 121 + 63*.

⁶ HEBBELYNCK, A.: *Le fragment Borgia de l'Épître aux Romains en copte sahidique* in *Muséon*, xxxv (1922), 193-201.

⁷ HEBBELYNCK: *Fragment fayoumique de la première épître aux Corinthiens* in *Muséon*, xxxv (1922), 3-16.

⁸ In *Rev. Bib.* (1922), 302-7.

⁹ In *Zeit. f. d. neutest. Wiss.* (1922), 314.

¹⁰ B. P. GRENFELL and A. S. HUNT: *The Oxyrhynchus Papyri* xv. London (1922), x + 250.

II. APOCRYPHAL, GNOSTIC, ETC.

The second Logion of P. Oxy. IV 654 has been the subject of a study by SCHUBART¹ whose views are opposed by FR. M. J. LAGRANGE².

V. BARTLETT has written on the "Oxyrhynchus 'Sayings of Jesus' in a new light"³ and has reviewed H. G. EVELYN WHITE's "Sayings of Jesus" (1920)⁴. This latter work has been reviewed also by J. G. MACHEN⁵. Earlier reviews not previously noted include one by R. REITZENSTEIN⁶ and another by B. CAPELLE⁷.

Reviews of SCHMIDT's "Gespräche Jesu mit seinen Jünger" (1919) have appeared by WINDISCH⁸, by BAUMSTARK⁹, and by VON DUESING¹⁰.

F. S. MARSH has published a study of "A new fragment of the Gospel (?) of Bartholomew"¹¹.

P. PEETERS has written a descriptive note on Golius' MS. of the "Arabic Gospel of the Infancy"¹², now Or. 350 in the Bodleian¹³.

L. FENDT has published an essay on the Gnostic mysteries¹⁴ which has been reviewed by H. KOCH¹⁵.

The second edition of DE FAYE's "Gnostiques et Gnosticisme" is announced, but I have not been able to see a copy¹⁶.

BUONAIUTI has published a selection of Gnostic fragments in the series of manuals of Christian writers recently undertaken in Rome¹⁷.

It is announced that C. SCHMIDT is preparing a new edition of the *Pistis Sophia* for the Danish *Coptica*.

III. LITURGICAL

J. M. HARDEN has published an account of the "Anaphora of the Ethiopic Testament of our Lord"¹⁸.

The "New Coptic Texts from the Monastery of S. Macarius" of H. G. EVELYN WHITE, now in the press, will contain portions of a Greek codex of the Liturgies of S. Basil and S. Gregory adding a good deal to the published texts.

In the course of his essay on the Martyrs of Egypt H. DELEHAYE makes an examination of the Coptic Synaxarium¹⁹.

In the *Corpus Scriptorum Christ. Orient.* FORGET has added a Latin translation of the first volume of the Alexandrian Synaxarium of which he has already published the Arabic text²⁰. Although this translation is announced as published in 1922 copies have not yet been put into circulation²¹.

The Coptic Wadi Sarga texts edited by W. E. CRUM²² contain several liturgical fragments, the creed, portions of a homily, etc.

Vol. xv of the *Oxyrhynchus Papyri*²³ contains (no. 1784) the text of the Constantinopolitan creed, and (no. 1786) a hymn with accompanying musical notation. This has been fully described also by A. NEPPI-MODONA²⁴.

D. O'LEARY has published an edition of the Theotokia with a selection of *epuena* which include several paraphrases not hitherto published, including some fragments from the Dér Abu Makâr²⁵, and is preparing a selection of Theotokia and kindred fragments from the same source.

The same writer has published a "Directory Fragment recently discovered in the Wadi n-Natrun" dealing with the use of the Theotokia²⁶.

¹ SCHUBART, *Das zweite Logion Oxy. P. IV 654* in *Z. f. d. neutest. Wissen.*, xx (1921), 215-223.

² LAGRANGE, *La seconde parole d'Oxyrhynque* in *Rev. Bibl.*, xxxi (1922), 427-433.

³ In *Expositor* (1922), 136-159.

⁴ In *J.T.S.*, xxiii (1922), 293-300.

⁵ In *Princet. Theol. Rev.*, xx (1922), 334-6.

⁶ In *Gött. Gel. Anz.*, clxxxiii (1921), 165-174.

⁷ In *Rev. Bénéd.*, xxxiii (1921), 80.

⁸ In *Museum*, xxviii (1921), 138-140.

⁹ In *Theol. Rev.*, xx (1921), 13/14.

¹⁰ In *Gött. Gel. Anz.*, clxxxiv (1922), 241-252.

¹¹ In *J.T.S.*, xxiii (1922), 400-1.

¹² Cf. Tischendorf, *Evang. Apoc.*, 181, etc.

¹³ PEETERS, *A propos de l'évangile arabe de l'enfance Le manuscrit de J. Golius* in *Anal. Boll.*, xli (1923), 132-4.

¹⁴ FENDT, *Gnostische Mysterien*. München (1922), 89.

¹⁵ In *Theol. Lit. Zeit.*, xlviii (1923), 198-9.

¹⁶ DE FAYE, E., *Gnostiques et Gnosticisme* (2nd ed.). Paris, 2 vols.

¹⁷ BUONAIUTI, G., *Frammenti gnostici. (Scrittori cristiani antichi.)* Roma, Libr. di cultura (1921).

¹⁸ In *J.T.S.*, xxiii (1922), 44-49.

¹⁹ Cf. (V) below.

²⁰ Vol. i in three parts, 1905-1907.

²¹ FORGET, *Synaxarium Alexand. (Corp. Scr. Chr. Or., No. 78)* (1922)—further details not yet available.

²² Cf. (VI) below.

²³ Cf. (I) above.

²⁴ NEPPI-MODONA, *L'innologia cristiana primitiva* in *Bilychnis* (1922), 15-26.

²⁵ O'LEARY, *The Coptic Theotokia*. London (1923), xii + 80.

²⁶ In *J.T.S.*, xxiv (1923), 428-432.

GROHMANN'S "Aethiopische Marienhymnen" (1919) has been reviewed by A. WALTHER¹ and by DUENSING².

It is understood that a Coptic priest is at present engaged on a new edition of the *Difnar* (Antiphonarium) from a Cairo MS.

IV. CHURCH LITERATURE.

Vol. xv of the *Oxyrhynchus Papyri*³ contains three patristic texts. The first of these (no. 1778) is a portion of the Greek text of the Apology of Aristides. The substance of this Apology was unknown before 1878 when the Armenian version was discovered and this was followed by the Syriac translation in 1889. Whilst this was being printed Dr Armitage Robinson recognized that it had been incorporated in the romance known as "Barlaam and Josaphat" of the 7/8 cent. though in several passages there was discrepancy between this Greek text and the Syriac. The passage (43 lines) in the Oxy. papyrus of the 4th cent. tends to support the Syriac though with some important variations.

Another text (no. 1782) contains the first three sections of the *Didaché*, the first fragment of this work discovered in Egypt. This text has been popularly described by A. NEPPI-MODONA⁴. The third text (no. 1783) contains *Mandate IX* of the *Pastor Hermas*, and of this also an account has been given by A. NEPPI-MODONA⁵.

A handy edition of the *Pastor* is announced as one of a series of "Scrittori cristiani antichi" but I have not been able to see a copy⁶. G. EDMUNDSON discusses the date of this work⁷.

Dean ROBINSON'S "Barnabas, Hermas, and the Didaché" (1920) has been very favourably reviewed by D. B. CAPELLE⁸ and by ANRICH⁹.

Dom CONNOLLY examines "The use of the *Didaché* in the *Didascalia*"¹⁰ incidentally employing the evidence of the discourse of Schnudi.

F. R. M. HITCHCOCK treats the problem "Did Clement of Alexandria know the *Didaché*?"¹¹

HARDEN'S edition of the "Ethiopic Didascalia" (1920) has been reviewed by DUENSING¹² and Dom CONNOLLY'S "So-called Egyptian Church Order" (1916) has been reviewed by JÉLICHER¹³.

In 1921 A. EBERLE published a thesis on the Mariology of St Cyril of Alexandria¹⁴ and this has been reviewed by H. KOCH¹⁵ and by D. R. PROOST¹⁶.

Dom WILMART examines the Latin recension of the *Apophthegmata Patrum Aegypti*¹⁷.

HOFFNER'S "Über die kopt.-sa'id. Apoph. Patrum Aeg." (1918) and his "Über Form und Gebrauch..." (1918) have been reviewed by G. ORT¹⁸ and, together with his "Griechisch-aeg. Offenbarung" (1921), by DRIGTON¹⁹.

An important work "on Egyptian monasticism" by the late W. BOUSSER dealing with the Apophthegmata, the Pachomian rule etc. for which his essay *Die Textüberlieferung...*²⁰ was preparatory, is now ready for the press.

G. MARRIOTT reviews MASON'S "Fifty Spiritual Homilies of St Macarius the Egyptian"²¹ and points out that the introduction is not in accord with recent research, the editor regarding these homilies as of Egyptian origin, though it now appears that a Mesopotamian and Messalian source is more probable²².

¹ In *O.L.Z.*, xxv (1922), 444-5.

² In *Theol. Lit. Zeit.*, XLVII (1922), 197-8.

³ Cf. under (I) above.

⁴ NEPPI-MODONA, *Un frammento della "Didache"* in *Bilychnis* (1922), 173-186.

⁵ NEPPI-MODONA, *Il "pastore d'Erma" in un recente pap. in Bilychnis* (1922), 257-267.

⁶ MONACHESE, *Il pastore di Erma. (Scrittori crist. antichi, no. 5.)* Rome (1922).

⁷ EDMUNDSON, *Date of the Shepherd of Hermas in Expositor*, cxli (1922), 161-176.

⁸ In *Rev. Bénéd.*, xxxiv (1922), 71-73.

⁹ In *Theol. Lit. Zeit.*, XLVIII (1923), 104-6.

¹⁰ In *J.T.S.*, xxiv (1923), 147-157.

¹¹ In *J.T.S.*, xxiv (1923), 397-401.

¹² In *Theol. Lit. Zeit.*, XLVII (1922), 198-9.

¹³ In *Gött. Gel. Anz.*, XLVII (1922), 211-4.

¹⁴ EBERLE, Ad., *Die Mariologie des heiligen Cyrillus von Alexandrien: Freiburg Theol. Studien*, xxvi. Freiburg i/B. (1921), xii + 40.

¹⁵ In *Theol. Lit. Zeit.*, XLVII (1922), 400-1.

¹⁶ In *Rev. Bénéd.*, xxxiv (1922), 299.

¹⁷ WILMART, *Le recueil latin des apophthegmes in Rev. Bénéd.* (1922), 185-198.

¹⁸ In *Rev. Hist. Relig.*, LXXXIV (1922), 286-7.

¹⁹ In *R.O.C.*, xiii (1920-21), 448-450.

²⁰ Cf. *Journal* (1922), 178.

²¹ MASON, *Fifty Spiritual Homilies of St Macarius the Egyptian*. London (1921), li + 316.

²² In *J.T.S.*, xxiv (1922), 429-431.

FERRAR gives a popular account of recent views about these homilies¹.

A very important contribution to Macarian studies is made by Dom VILLECOURT². This is an attempt to establish a basis for the textual criticism of the homilies ascribed to S. Macarius. The writer examines the passages common to the fifty homilies and to the seven "opuscula" as edited by P. Poussines and shows that most of the passages peculiar to the "opuscula" are homiletic fragments, sometimes simple repetitions of a theme from the homilies with fresh elaborations or new applications. Apparently there was a body of Macarian, i.e., Messalian, homiletic matter in circulation from which the canonical Homilies and "opuscula" were formed at some unspecified date.

H. DE VIS has published the text and translation of a homily *ex cathedra* of Mark (the Younger) patriarch of Alexandria (d. A.D. 819) against the Apollinarists, the C. of Chalcedon etc.³

Sir HERBERT THOMPSON has edited part of a letter from Dioscorus to Shenoute. The text consists of six folios which immediately precede the two folios published by MUNIER in 1918. To the Coptic text of these new pages he adds a translation of the whole and a facsimile of one of the pages⁴.

In the same collection published in honour of the centenary of Champollion H. SOTTAS publishes a new letter from the correspondence of St. Psenuthios⁵. This consists of twenty-two lines, the last three of which are defective. The text is accompanied by notes and one page facsimile.

M. GUIDI has edited, with translation and notes, the Arabic text of a homily by Theophilus of Alexandria on the coming of the B. Virgin to Egypt⁶.

H. DE VIS has published the text of five Bohairic homilies in the Vatican Library⁷. These homilies are (i) a panegyric on St. John the Baptist, (ii) a sermon by Benjamin on the marriage at Cana, (iii) a panegyric on the Holy Innocents, (iv) a sermon by Demetrius on Isai. i 16-17, and (v) a sermon by Severian on penitence.

This has been reviewed by Mgr. HEBBELYNCK⁸ who asks that more precise details be given of the MSS used: "dimensions du parchemin et de la surface écrite, tracé à la pointe sèche, nombre des lignes de chaque colonne, emploi éventuel de la polychromie pour l'ornementation des titres, des chiffres de la pagination, des initiales etc.; ces détails peuvent être précieux pour l'identification des fragments complémentaires des œuvres incomplètes et pour le groupement des manuscrits provenant d'un même scriptorium"⁹; and briefly noticed in *The Times Literary Supplement*¹⁰.

WESSELY's "Griech. u. kopt. Texte theologisches Inhalts" (1917) has been reviewed by WIEDEMANN¹¹.

J. PERIER is responsible for a new volume of the *Patrologia Orientalis* containing Ibn Sabba's "Résumé of ecclesiastical knowledge"¹².

The *Scala Magna* of Abu l-Barakat ibn Kubr occupies an important position in the history of the literature and liturgy of the Coptic Church. Books III-IV were published by LORET in the first volume of the *Annales du Service* (1899) but for the rest the only information available has been that published by Kircher in 1643 which was freely used by Vansleb. M. KUENTZ is preparing, and has almost ready, a critical edition of Kircher's text, and M. MUNIER is getting on with his edition of the Sa'idic *Scala* (Paris Bib. Nat. Copte 44) which has been so long desired. Meanwhile TISSEHANT, VILLECOURT, and WIET have published an account of recent research in the life and personality of the author of the *Scala*¹³.

¹ FERRAR, *New light on an ancient book in Interpreter*, xviii (1922), 229-237.

² VILLECOURT, L., *S. Macaire—Les opusculs ascétiques et leur relation avec les homélies spirituelles* in *Muséon*, xxv (1922), 203-212.

³ DE VIS, *Homélie cathédrale de Marc patriarche d'Alexandrie* in *Muséon*, xxxiv (1921), 179-216 (179-184 = Introduction) and xxxv (1922), 17-48. Sep. pub. Paris (1922), pp. 70.

⁴ THOMPSON, *Dioscorus and Shenoute* in *Rec. d'Étud. déd. à la mémoire de J. F. Champollion* (Bib. de l'École des Hautes Études). Paris (1922), 367-376.

⁵ SOTTAS, *Une nouvelle pièce de la correspond. de S. Psenuthios* in *Rec. d'Étud. déd. à la mémoire de J. F. Champollion* (Bib. de l'École des Hautes Études). Paris (1922), 494-502.

⁶ GUIDI, *La omelia di Teofilo di Alessandria* in *Rendic. della R. Accad. Naz. dei Lincei (Classe di scienze morali etc.)*, xxx (1922), text 217-237, trans. 274-315.

⁷ DE VIS, *Homélies coptes de la Vaticane. Coptica I.* Copenhagen (1922), 220 pp. and three unnumbered pages after title.

⁸ In *Muséon*, xxv (1922), 305-9.

⁹ *Ibid.*, 309.

¹⁰ Nov. 16, 1922, p. 739.

¹¹ In *O.L.Z.* (1922), 248.

¹² PERIER, J., *La Perle Précieuse*, Patr. Orient., xvi, 593-760 (1922), Arabic text and French trans.

¹³ *Recherches sur la personnalité et la vie d'Abū 'l-Barakāt ibn Kubr* in *R.O.C.*, xxii (1920-21), 373-394.

H. G. EVELYN WHITE'S "New Coptic Texts from the Monastery of S. Macarius" now in the press will contain the Coptic original of the controversy of John III with the Jew and the Malkite before 'Abd el-'Aziz of which two Arabic versions are at Paris. The same collection will also contain fragments of Severian of Gabala.

V. HISTORY.

F. M. ABEL¹ discusses S. Cyril's account of the geography of Egypt², Palestine, Arabia and Syria.

ARMSTRONG'S essay on "The Synod of Alexandria and the Schism of Antioch in 362"³ unfortunately escaped notice in the last bibliography.

Prof. BURKITT'S "Christian Thought in Egypt about A.D. 400"⁴ is a study based on the material in CRUM'S "Der Pap. Codex...Cheltenham" (1915) from which W. Hengstenberg drew his "Pachomiana" (1922)⁵.

I. GUIDI has written a brief description of the Ethiopic Church⁶ in which he deals with its foundation, its connection with the Coptic Church, and more fully with its intercourse with the west and its doctrinal standards.

MASPERO-WIET "Matériaux..." (1919) is reviewed by GUIDI⁷ and by A. R. G.⁸ In the last bibliography⁹ it was announced that MASPERO'S important posthumous work on the history of Egypt was in the hands of Dr ADRIAN FORTESCUE. This work has now been completed and is in the press, though it is with regret that we note that Dr FORTESCUE himself has died in the interval. He was not primarily associated with Egyptian studies but his "Minor Eastern Churches" contains the most satisfactory and interesting account of the Coptic Church at present available, and his work on "The Mass" has exercised a wide influence on liturgical studies in this country.

HAASE'S "Koptisch. Quellen z. Konzil von Nicaea" (1920) has been reviewed by LIETZMANN¹⁰, by ROSTAGNI¹¹, and by WALTHER¹².

W. SCHUBART'S history of Egypt¹³ covers the whole period from Alexander to the Muslim conquest, the last chapter dealing more particularly with the growth and development of Christianity there: in this he contrasts native and Hellenistic thought, notes the survival of pagan ideas, the mania for finding local saints, the identity of patriotism with Coptic Christianity, and the way in which hard times tended to drive many of the fellahin into the monasteries.

Mgr. E. MERCATI has published a list of the patriarchs of Alexandria¹⁴ in which he treats more fully a catalogue to which W. E. CRUM has already drawn attention¹⁵.

A critical study of the catalogue of the patriarchs of the 6/7 th cent. has been made by A. JULICHER¹⁶.

Miss ECKENSTEIN'S "History of Sinai" (1921) has been reviewed by L. B. ELLIS¹⁷, by W. WRESZINSKI¹⁸, and by SELLIN¹⁹.

B. CATTAN'S "La chiesa copta nel secolo XVII. Documenti inediti" has been noted already²⁰. It must be added that, besides appearing in *Bessarione* (1918) it was separately published in the following year²¹ and has been reviewed by JANIN²².

¹ ABEL, *La géographie sacrée chez S. Cyrille d'Alexandrie* in *Rev. Bib.*, xxxi (1922), 407-427.

² Pp. 408-413.

³ In *J.T.S.*, xxi (1920-21), 206-221, 347-355.

⁴ In *J.T.S.*, xxiii (1922), 314-318.

⁵ *Cl. Journal* (1922), 175, n. 15.

⁶ GUIDI, *La chiesa Abissina in Oriente Moderno*, ii (1922), 123-138, 186-190, 252-6, also sep. pub. Rome (1922), pp. 17.

⁷ In *Riv. Stud. Orient.*, ix (1922), 416-418.

⁸ In *Jour. R. Asiat. Soc.* (1921), 624-7.

⁹ *Journal* (1922), 190.

¹⁰ In *Theol. Lit. Zeit.* (1921), 13-14.

¹¹ In *Riv. di Filologia e di Istruzione classica*, xlix (1921), 119-120.

¹² In *O.L.Z.*, xxvi (1923), 22-23.

¹³ SCHUBART, W., *Ägypten von Alexander dem Grossen bis auf Mohammed*. Berlin (1923), iv, 379, one map.

¹⁴ MERCATI, *Una serie di patriarchi Alessandrini e non una lista di santi martiri* in *Bessarione*, xxxii (1916—but long over-due), 199-212.

¹⁵ In *Proc. Soc. Bib. Arch.*, xxx (1908), 255.

¹⁶ JULICHER, *Die Liste der Alexand. Patriarchen im 6 und 7 Jahrh.* in *Festgabe für D. Dr K. Müller*. Tübingen (1922), 7-23.

¹⁷ In *Anc. Egypt* (1922), 28.

¹⁸ In *O.L.Z.*, xxvi (1923), 59-62.

¹⁹ In *Theol. Lit. Zeit.*, xlviii (1923), 74-75.

²⁰ In *Journal* (1922), 181.

²¹ Rome (1919), pp. 28.

²² In *Échos d'Orient*, xxiv (1921), 381.

P. PEETERS gives an account of the translations and translators of oriental hagiography of the Byzantine period¹ devoting five pages² to the Coptic versions which he regards as of secondary importance, the Arabic lives of the saints drawing more from the Syriac. This account of Coptic hagiography is followed by a brief notice of Nubian material³.

H. DELEHAYE has published a study on the "Martyrs of Egypt"⁴ in which he treats (i) the history of the persecution, (ii) the lists of martyrs, the *Martyrologium Hieronymianum*, the Greek and Coptic synaxaria, (iii) the Greek, Latin, and Coptic texts of the Passions, with particular reference to those of SS. Phileas and Philorus, of S. Psotius, and of S. Dioscorus. Three appendices deal with the passions of S. Paphnutius, S. Psotius, and S. Dioscorus.

DELEHAYE's earlier "Les passions des martyrs"⁵ together with his essay on "Martyr et Confesseur"⁶ and PEETERS' "Traductions orientales..."⁷ are reviewed by KATTENBUSCH⁸. With these must be classed the "Note Agiografiche" of FRANCHI DE' CAVALIERI⁹ which is also reviewed by KATTENBUSCH in the article already mentioned.

A. VON PREMERSTEIN has published a study "on the so-called Acts of the Martyrs of Alexandria" (the Acts of Isidore, Paul and Antonius, Appianus etc.) in which he makes a critical examination of the extant material¹⁰.

MUNIER's "Acts of the Martyrs" in *Ann. Serv.*, xvii (1917), 144 sqq. has been reviewed by K. SETHE¹¹.

BUCKLE's "Forty Martyrs of Sebaste" (1921) is reviewed by P. PEETERS who censures some inaccuracies in the translation¹².

PH. GOBILLOT has continued his studies in the origins of Christian monasticism¹³.

The late W. BOUSSET has published an essay on the composition of the "Historia Lausiaca"¹⁴. The same writer has left an important study on the type of monasticism represented in Nitria¹⁵ showing how the anchorites there disapproved the cenobitic life and dealing with the recluses, the vagrant monks, and kindred topics. BOUSSET's larger work on the "Apophthegmata" is now in the press. The text of the monastic rule of St Pakhom and kindred material forms a new volume of the *Florilegium Patristicum* formerly edited by the late G. RAUSCHEN, now by B. ALBERS¹⁶.

The "Conferences" of St John Cassian have been translated into French by Dom E. PICHERY¹⁷ and this translation has been reviewed by RIENTORT¹⁸, whilst Dom MENAGER discusses the nationality of St John Cassian¹⁹.

W. H. MACKEAN's "Christian Monasticism in Egypt" (1920) is briefly noticed in the *Revue Bénédictine*²⁰ and reviewed more fully by H. D(ÉLEHAYE)²¹.

H. LEFORT examines the Greek life of St Pakhom and discusses its textual criticism²², his conclusions being reviewed by P. PEETERS²³.

Prof. LEFORT has returned from Mt. Athos with photographs of several new recensions of the life of S. Pakhom which are going to complicate the problem considerably.

¹ PEETERS, *Traductions et traducteurs dans l'hagiographie orientale à l'époque Byz.* in *Ann. Boll.*, xl (1922), 241-298.

² Pp. 243-7.

³ Pp. 247-9.

⁴ DELEHAYE, *Les martyres d'Égypte* in *Ann. Boll.*, xl (1922), 5-154, 241-298, also pub. sep. Brussels (1923), pp. 321.

⁵ DELEHAYE, *Les Passions des Martyrs*. Brussels (1921), viii + 448.

⁶ Cf. *Journal* (1922), 180.

⁷ Cf. *Journal* (1922), 180.

⁸ In *Theol. Lit. Zeit.*, xlviii (1923), 58-62.

⁹ FRANCHI DE' CAVALIERI, *Note Agiografiche, Studi e testi*, no. 33, fasc. 6. Rome (1920), pp. 225.

¹⁰ A. VON PREMERSTEIN, *Zu den sogenannten Alexandrinischen Märtyrakten* in *Philologus: Supplementband xvi*, Heft II (1923), pp. 76.

¹¹ In *Zeitschr. f. d. g. Spr.* (1922), 139-140.

¹² In *Ann. Boll.*, xli (1923), 176-7.

¹³ GOBILLOT, *Les origines du monasticisme chrétien* (no. 5) in *Rech. de Science Relig.* (1922), 46-48.

¹⁴ BOUSSET, *Zu Komposition der Historia Lausiaca* in *Zeit. neutest. Wissen.* (1922), 81-98.

¹⁵ BOUSSET, *Das Mönchtum der Sketischen Wüste* in *Z. f. Kirchengesch.*, xlii (1923), 1-41.

¹⁶ S. Pachomii Abbatis Tabennensis Regulae Monasticae in *Florileg. Patr.*, no. 16. Bonn (1923), pp. 126.

¹⁷ PICHERY, E., *Jean Cassien: Conférences avec les Pères du désert*. Paris (1920-2), 2 vols., pp. 580 and 372.

¹⁸ In *Échos d'Orient* (1922), 496-7.

¹⁹ In *Échos d'Orient* (1921), 330-358.

²⁰ *Rev. Bénéd.*, xxiv (1922), 372.

²¹ In *Ann. Boll.*, xli (1923), 158-9.

²² LEFORT, *Analecta Philologica* in *Muséon*, xxxiv (1921), 173-7.

²³ In *Ann. Boll.*, xli (1923), 177-8.

VI. NON-LITERARY TEXTS.

P. A. BOESER has published a translation of two forms of prayer and exorcism¹ which are magical in character rather than liturgical, though in one place the author claims to be St Gregory². They are possibly Gnostic in origin. The text of these was published in 1897³.

R. ENGELBACH gives an account of *Ostraka in the Sahidic dialect of Coptic*⁴.

W. E. CRUM in "Coptic Ostraka in the Museo Archeologico at Milan and some others"⁵ gives twelve texts, probably of the 6/7 cent. and all doubtless from Thebes or its vicinity. Of these (i) contains the verse Psalm 1, 1 which occurs in other ostraka and was perhaps used as a protective amulet.

The same writer in an article on Coptic magic⁶ gives four magical texts and draws attention to the slight use of Coptic material as yet made by students of folk-lore.

W. E. CRUM and H. L. BELL have published a volume of "Wadi Sarga Coptic and Greek Texts"⁷ of which CRUM is responsible for the Coptic portion which contains 385 fragments of the 6/7 cent. Of these some are Scriptural passages⁸, others are liturgical⁹, whilst others are magical, medical, and mathematical. The work has been reviewed by CALDERINI¹⁰.

BONNER CAMPBELL writes on *A Papyrus describing magical powers*¹¹. EITREM publishes *Notes on a Magical Papyrus*¹² and on Pap. Soc. It. I, 28 and 29¹³, the leaden tablet which was the subject of a commentary by R. WÜNSCH¹⁴.

E. KURTZ discusses the magical hymns of the Florentine Papyri¹⁵.

S. EITREM discusses three magical papyri, Leyden P. J. 384, referring incidentally to the Christian amulet of which he published an account in 1921, Leyd. P. J. 395 (edited by Dietrich in *Abraxas*, p. 169), and the Paris magical papyrus edited by Wessely in 1888¹⁶.

STEINWENTER's "Studien zu den kopt. Rechtsurkunden" (1920) has been reviewed in several periodicals devoted to legal studies, by KOSCHAKER¹⁷, by A. BERGER¹⁸ and by W. SPIEGELBERG¹⁹. STEINWENTER himself has added a note on "Koptischen Kinderoblationen"²⁰.

Mgr. HEBBELYNCK is making progress with his Vatican Catalogue and intends to give a summary of it in the forthcoming volume of essays in honour of H. E. Cardinal Ehrle.

VII. PHILOLOGY.

C. KUENTE discusses the feminine collective in -n in the series *mooy, motein, moteiooye* "water" (Sahidic), and the kindred *tay, toyei, toyeie* "mountain" (Akhmimic)²¹.

SPIEGELBERG's "Koptische Handwörterbuch" (1921) has been the subject of a critical examination by W. E. CRUM²² and is more briefly reviewed by DRIOTON²³.

The full title of HOFFNER's treatise on the Greek loan-words in the Sahidic text of the *Apophthegmata*, accidentally omitted from the last bibliography, is HOFFNER: *Ueber Form und Gebrauch der griechischen Lehnwörter in der kopt.-Sahidischen Apophthegmenversion*²⁴. It has been reviewed by G. OHT²⁵.

¹ BOESER, *Deux textes coptes du musée d'antiquités de Leide in Rec. d'Étud. Champollion*. Paris (1922), 529-535.

² Fo. 14, line 13.

³ *Manusc. coptes du musée d'Antiq. des Pays-Bas*. Leide, 1897.

⁴ In *Ann. Serv.*, xxii (1922), 269-274.

⁵ In *Aegyptus*, iii (1922), 275-283.

⁶ CRUM, *La Magie Copte, Nouveaux textes in Rec. Champollion*. Paris (1922), 537-544, one plate.

⁷ CRUM and BELL, *Wadi Sarga Coptic and Greek Texts: introduction by H. Campbell Thompson; Coptica III*. Copenhagen (1922), xix + 233.

⁸ Cf. (I) above.

⁹ Cf. (III) above.

¹⁰ In *Aegyptus*, iii (1922), 362.

¹¹ In *Proc. Amer. Philol. Assoc.*, lii (1921), 111-118.

¹² In *Aegyptus*, iv (1923), 59-60.

¹³ In *Aegyptus*, iv (1923), 61-63.

¹⁴ In *Berl. Phil. Woch.* (1912), 3 sqq.

¹⁵ KURTZ, *Zu den magischen Hymnen aus Florentiner Papyri in Byzant. Neugr. Jahrb.*, xii (1922), 340.

¹⁶ EITREM, *Varia*, nos. 36-38, in *Nordisk Tidskrift for Filologi*. Copenhagen (1922), 102-116.

¹⁷ In *Zeit. der Savigny-Stift. f. Rechtsgesch.*, xli (1920), 330-334.

¹⁸ In *Z. f. vergl. Rechtswissen.*, xxxix (1921), 312-313.

¹⁹ In *O.L.Z.* (1922), 444.

²⁰ In *Z. der Savigny-Stift. f. Rechtsgesch.* (Kanonist. Abt.), xliii (1922), 385-8.

²¹ KUENTE, *Un nouveau collectif sahidique in Bull. de l'Inst.*, xi (1922), 223-4.

²² *Journal* (1922), 116-119, 187-190.

²³ In *R.O.C.*, xxii (1920-21), 451.

²⁴ Wien (1918), pp. 40.

²⁵ In *Rev. Hist. Relig.*, lxxxiv (1922), 286-7.

P. LACAU has published a study on the phonetic change of *n* to *r* in the passage of words from Egyptian to Coptic, and examines four instances (i) *nmh* + *pāre*, (ii) *inhn'n* + *german*, *erman*, (iii) *in-Mnt*, *in-Mnt* + *ḫmont*, *erman* and (iv) *pn-mnhp* + *ḫpāroṣṣ*.¹

K. SETHE has written a note on a misuse of the qualitative in Coptic.²

E. DÉVAUD has published a thesis³ in which he traces 21 Coptic words to Egyptian sources deducing thence canons of phonetic change which permit other Egyptian words to be interpreted by Coptic ones derived by similar changes. He then examines two instances of Coptic derivation from Coptic sources, and then a series of seven derivatives from Semitic. The final pages (61 etc.) outline a scheme of inventory of Coptic words of proved origin and give specimens of the methods to be employed in this inventory which the author originally purposed to include as a second part but was prevented by the limitations imposed by the fact that this is a *thèse de doctorat* for the university of Neuchâtel. This work has been reviewed by W. SPIEGELBERG.⁴

Some Coptic etymologies are discussed by SPIEGELBERG⁵ and incidentally by H. RANKE⁶ and by K. SETHE⁷.

F. BILABEL examines the form *βόθρος* in the "epistula de vulturis virtutibus" mentioned in the *Catalog. cod. astrolog. Graec.* (tom. VIII, 3 (1912), p. 126) and traces it to the Coptic *ḫotroṣ* (*ḫotroṣ*) and thence to Arabic *Butrus*.⁸

VIII. ARCHAEOLOGY ETC.

CONSTANS describes a Christian amulet on papyrus.⁹

EITREM's account of a Christian amulet published at Christiania in 1921 and subsequently in *Aegyptus*¹⁰ has been reviewed by LOHMEYER¹¹, by P. THOMSEN¹², and by a writer in the *Zeitsch. f. d. neutest. Wissensch.*¹³

A. F. KENDRICK has issued the third volume of his "Catalogue of Textiles from Burying-Grounds in Egypt"¹⁴ which deals with the Coptic period. 240 examples are described with an introductory account of the materials employed and methods of work. This includes silk-weaving which was introduced in the 6th cent. The first volume of this work has been reviewed by H. ABEL.¹⁵

PATRICIOLO and MONNERET's "La chiesa di S. Barbara" (1922) has been reviewed by A. CALDERINI¹⁶. The publishers announce from Florence an English edition "The Church of St Barbara in Old Cairo" as to appear shortly.

STRZYGOWSKI's "Ursprung der crist. Kirchenkunst" (1920) has been reviewed by E. HENNECKE¹⁷. An English translation is about to be published by the Clarendon Press.

W. DE GRÜNHISEN with the co-operation of P. HYVERNAT is publishing *Les Evangiles copto-arabes du xiv^e au xvi^e siècle* which will form a second volume to his *Caractéristiques de l'art copte* (1922)¹⁸. A third volume, now in preparation, will deal with Coptic art under Asiatic influences.

H. JUNKER describes the remains at El-Kubanieh (south) about 10 kil. N. of Aswan on the left bank of the Nile¹⁹. After describing the Ptolemaic sanctuary he devotes the greater part of his attention to the Coptic monastery and its domed church of the 5/7 cent.

A third edition has appeared of C. M. KAUFMANN's account of the remains at Menapolis²⁰ and this has been reviewed by M. ROSSI²¹ and by A. SCHARFF²².

¹ LACAU, *Sur le (N) égyptien devenant p (R) en copte* in *Recueil Champollion*. Paris (1922), 721-731.

² SETHE, *Ein Missbrauch des Qualitativs im koptischen* in *Zeitschr. f. äg. Spr.*, LI (1922), 138.

³ DÉVAUD, *Études d'Étymologie copte*. Freiburg (Suisse) (1922), vii + 68.

⁴ In *O.L.Z.*, XXVI (1923), 268-9.

⁵ In *Zeitschr. f. äg. Spr.* (1923), 154-8.

⁶ In *Zeitschr. f. äg. Spr.* (1923), 132-8.

⁷ In *Zeitschr. f. äg. Spr.* (1923), 149-150.

⁸ In *Philologus*, LXXVIII (1923), 401-3.

⁹ CONSTANS, *Une amulette chrétienne sur papyrus* in *J. des savants* (1922), 181-2.

¹⁰ *Cf. Journal* (1922), 185.

¹¹ In *Theol. Lit. Zeit.* (1922), 401.

¹² In *Phil. Woch.*, XLII (1922), 1047.

¹³ *For* (1922), 79.

¹⁴ KENDRICK, *Catalogue of Textiles from Burying-Grounds in Egypt: III. Coptic Period*. London (1922), vii + 107, 32 plates.

¹⁵ In *O.L.Z.* (1922), 315-6.

¹⁶ In *Aegyptus*, III (1922), 231-5.

¹⁷ In *Theol. Lit. Zeit.* (1921), 176-9.

¹⁸ *Cf. Journal* (1922), 186.

¹⁹ JUNKER, *Das Kloster am Isiaberg* (*Akad. d. Wissensch. in Wien. Philos.-Hist. Klasse*, LXVI, 1). Wien (1922), pp. 67, 3 plans, 7 pages of plates.

²⁰ KAUFMANN, *Die heilige Stadt der Wüste*, 3rd ed. (1921), ix + 223. 189 illustrations.

²¹ In *Büchlein*, XI (1922), 412-4.

²² In *O.L.Z.* (1923), 156.

The cult of St Menas seems to have been wide-spread and to have extended to Roumania: its prevalence there has been the subject of a study by R. NETZHAMMER¹. This work, with that of C. KAUFMANN, has been reviewed by H. DELEHAYE².

Mgr. KAUFMANN has also published a "Handbook of Christian Archaeology"³ in which he gives considerable attention to material of the Coptic church. This has been reviewed by ZSCHARNACK⁴.

The British Museum has published a guide-book dealing with the Coptic Room⁵. Many acquisitions have been made recently to the Coptic collection in the British Museum and amongst these are a complete set of vessels in bronze for the celebration of the Eucharist, censers with chains, a measure for the incense, vessels for oil, wine, and water, lamps on which the cross and the Egyptian sign for life are curiously blended, two large pricket candlesticks, and a large standard lampstand. Besides these are elaborately carved stone panels from the apse of a Coptic church in Upper Egypt, two sides of an altar-box (used for holding the sacred vessels), and two pair of painted boards, the one representing St Joseph, and the other Christ's entry into Jerusalem on Palm Sunday. These articles came from the church at Edfu from which the British Museum acquired several MSS. in 1913⁶.

Prof. UGO MONNERET DE VILLARD has planned a series of monographs on Egyptian Christian art, the first of which is to deal with sculpture belonging to Ahnas el-Medinet⁷.

P. PERDRIZET has published a thesis on "Negotium perambulans in tenebris"⁸ which is principally concerned with the superstitious current in the early Coptic church and with the St Sissinius who is often portrayed as a horseman spearing a demon. This essay has been reviewed by DELATTE⁹ and by W. SCOTT¹⁰.

A. JACOBY has published an essay on dog-headed demons and refers to Coptic superstitions bearing on this topic¹¹.

Dr G. P. SOBBY has written on "Customs and Superstitions of the Egyptians connected with pregnancy and child-birth"¹² which he illustrates by various Coptic usages still in vogue.

In 1921 Miss MURRAY described the "Ceremony of Anba Tarabo"¹³ which is a form of exorcism against the bite of a mad dog¹⁴ and this essay is reviewed by H. DELEHAYE¹⁵.

HOFFNER's "Griechisch-ägypt. Offenbarungszauber"¹⁶ does not professedly deal with Christian Egypt, but it contains a large amount of material illustrating Jewish, Greek, and Egyptian magic of the early centuries of the Christian era and directly or indirectly bearing on Coptic superstitions. It has been reviewed by DRIGOTON¹⁷, by W. SCOTT¹⁸, and by PREISENDANZ¹⁹.

W. S. BLACKMAN writes on "Festivals celebrating local Saints in modern Egypt"²⁰.

IX. MISCELLANEOUS.

Prof. LEFORT has carried out the photography of all Coptic MSS. at Cairo (Museum, Institut Français, Coptic Museum) so far as these have been put within his reach: this with a view to forming an exhaustive collection of Coptic MSS. in photograph for the university of Louvain. Prof. Lefort hopes to collect photographs of MSS. in other libraries on the same plan.

¹ NETZHAMMER, *Die Verehrung des heiligen Menas bei den Rumänen*. Bukarest (1922), pp. 63.

² In *Ann. Boll.*, xli (1923), 184-5.

³ KAUFMANN, *Handbuch der christlichen Archäologie*. Paderborn (1922), xviii + 684. 331 illustrations.

⁴ In *Z. f. Kirchengesch.*, xlii (1923), 101-2.

⁵ *British Mus. Guide to the 4th, 5th, 6th Egyptian Rooms and Coptic Room*. London (1922), xvi + 376. 7 plates, 157 illustrations.

⁶ *Cf. Times*, 14 May 1923.

⁷ MONNERET DE VILLARD, *Saggio di una bibliografia dell' arte cristiana in Egitto* in *Boll. Reale Inst. de Archeol. e St. dell' Arte*, i (1922), pp. 15.

⁸ PERDRIZET, *Negotium perambulans in tenebris (Gréc.-orient. démonologie)*. Faculté des lettres de l'univ. de Strasbourg, vi. Strasbourg (1923), pp. 38. 15 figs.

⁹ In *Bull. Bibl. Mus. Belg.*, xxvi (1922), 234.

¹⁰ In *Classical Rev.* (1922), 191.

¹¹ JACOBY, *Der Hundsköpfige Dämon der Unterwelt* in *Archiv f. Religionswiss.*, xxi (1922), 219-225.

¹² In *Anc. Egypt* (1923), 9-16.

¹³ In *Anc. Egypt* (1921), 110-114.

¹⁴ *Cf. CRUM, Catal. of MSS. in John Rylands Libr.*, p. 236.

¹⁵ In *Ann. Boll.*, xli (1923), 1.

¹⁶ HOFFNER, *Griechisch-ägypt. Offenbarungszauber*. Leipzig (1921), vi + 265.

¹⁷ In *R.O.C.*, xxii (1920-21), 448-450.

¹⁸ In *Journal*, viii (1922), 111-116.

¹⁹ In *Lit. Zent. Blatt.*, lxxiv (1923), 100-1.

²⁰ In *Discovery*, iv (1923), 11-14.

BIBLIOGRAPHY 1921-1922: GRAECO-ROMAN EGYPT GREEK INSCRIPTIONS

By MARCUS N. TOD, M.A.

THE present Bibliography, continuing that which appeared in this *Journal*, vii, 105 f., deals primarily with the publications of the years 1921 and 1922. No attempt has been made to enumerate all reviews, though some are occasionally mentioned for special reasons. My task has been greatly facilitated by the generosity with which Mr F. L. Griffith has placed at my disposal the resources of his library.

The article on Egypt in the *Dictionnaire d'Archéologie Chrétienne et de Liturgie*, written by H. LECLERCQ, has a long and interesting section on epigraphy (xxvii, cols. 2486-2521), subdivided as follows: (1) chronology, (2) topography, (3) liturgical formulae, (4) acclamations, (5) formulae of the *tituli*, (6) epithets applied to the deceased, (7) symbols, (8) titles and professions, (9) pagan inscriptions, and (10) pagan acclamation. The Index to vols. xi-xx of the *Annales du Service des Antiquités* (Cairo, 1921), compiled by H. MUNIER, will also be of value to students of Graeco-Egyptian epigraphy. Even more important is F. PREISIGKE's *Namenbuch* (Heidelberg, Selbstverlag des Herausgebers, 1922), containing a list of the personal names, numbering no fewer than 17,245, found in the Greek inscriptions and papyri of Egypt: this work I know only through an appreciative review (*Oriental. Litstg.*, xxvi, 206 ff.) by W. SCHUBART, who indicates a number of directions in which it will form an invaluable basis for future research. The origin and significance of the name *Koropia* and similar names, which occur not only in Egypt but elsewhere also in the Greek world, is examined by P. PERDRIET (*Rev. Ét. Anc.*, xxiii, 85 ff.), who, in the light of two passages in the *Gnomon*, thinks that the bearers were rescued as infants after being exposed on the *koropia* or refuse-heap: with this view P. GRAINDOR agrees (*Marbres et Textes Antiques d'Époque Impériale*, Ghent, 1922, 24 f.). In *Rev. Ét. Anc.*, xxiii, 283 f. PERDRIET collects from inscriptions and literature several references to deaths caused by scorpion-stings. Lesquier's great work, previously noticed, on the Roman army in Egypt has called forth valuable reviews by G. ROUILLARD (*Rev. Phil.*, xlv, 171 f.), J. CAROFINO (*Rev. Ét. Anc.*, xxiii, 68 ff.), G. BLOCH (*Rev. Ét. Gr.*, xxxiii, 108 ff.) and A. MERLIN (*Journal des Savants*, 1922, 19 ff.).

A geographical survey of recent discoveries will find in Alexandria its most convenient point of departure. E. BRECCIA, the indefatigable Director of the Museum of Graeco-Roman Antiquities, has issued a second edition, in the English language, of his excellent guide to the ancient and modern town, *Alexandria ad Aegyptum* (Istituto d'arti grafiche, Bergamo, 1922), containing a description of the Museum and of some of its epigraphical treasures (cf. *Journal*, viii, 263, *Rev. Arch.*, xvi, 1922, 197, *Aegyptus*, iii, 113 f.). His report on the Museum's work in 1919-20 (*Rapport sur la marche du service du Musée pendant l'exercice 1919-1920*, Alexandria, 1921) gives a detailed account of the excavation of the Serapeum (p. 3 ff.) and of the cemetery of Anfûshi (p. 55 ff.). A grave in the latter had an inscription painted on one of its walls as well as a ship (p. 59); the former produced greater epigraphical results, including thirty-five *peltes* with Greek, Latin or bilingual inscriptions, eight inscribed pieces of *terra sigillata*, and 600 amphora-handles, the great majority of which are of Rhodian make (Plates XIII-XVI). In a brief review of this report (*Bull. Soc. Arch. Alex.*, n.s., v, 85 f.), the author makes several corrections of and additions to the texts there published. The same fascicule of the Archaeological Society's *Bulletin* calls attention to a number of "Alexandrian monuments in foreign collections" (p. 64 ff.), including a leaden tablet of the third century A.D., inscribed with imprecations against a certain Annianus, in the Bibliothèque Nationale at Paris and a votive to Artemis Soteira in the Louvre. It further contains a letter (p. 10 f.) in which G. LUMBERO comments on two epitaphs (Neroutsos, *Lanc. Alex.*, p. 94) of the Roman imperial period, and especially on the Greek use of the epithet *καλός* and the comparison with Heracles, and a review by E. BRECCIA (p. 71 ff.) which corrects the readings of two inscriptions in R. PAGENSTECHE's admirable study of Alexandrian graves and grave-paintings (*Nekropolis: Untersuchungen über Gestalt u. Entwicklung der alexandrinischen Grabanlagen u. ihren Malereien*, Leipzig, Giesecke u. Devrient, 1919); though the

author's aim is not mainly epigraphical, he has discussed or recorded a considerable number of epitaphs, engraved or painted (pp. 25, 35-66, 95), and has added (p. 312) an index of proper-names from tomb-inscriptions found at Alexandria. To A. STEIN we owe a careful publication (*Jahreshefte* XXI-XXII, Beiblatt, 271 ff.) of the text won by uniting three fragments in the Alexandria Museum (Nos. 67 and 169 in Breccia's Catalogue), giving us "the first epigraphical example of the protocol of a case brought before the Idiologos," in this instance Marcius Moesiacus, whom we meet (*Pap. Tebt.*, II, 296) holding the same office in February, 123 A.D., two and a half years later: the article is by no means robbed of its value by the fact that the same combination had been made in 1916 by S. de Ricci, from whom, however, Stein differs in one important word, reading εἰσάγων and not λειπάγων in line 5 (cf. *Journal*, VI, 215). G. LUMBRERO has discussed (*Aegyptus*, II, 33 ff.) the term ἀγοραστής, which is found on several inscribed sepulchral vases of Alexandria, one of which is published in Dittenberger, *Or. gr. inscr. sel.*, 36.

It is only through reviews by A. WIEDEMANN in *Orient. Litztg.*, XXVI, 204 f. that I know two works of W. SPIEGELBERG published in 1922, *Der demotische Text der Priesterdekrete von Kanopus und Memphis (Rosettana) mit den hieroglyphischen und griechischen Fassungen und deutscher Übersetzung* (Heidelberg, Selbstverlag des Verfassers), which deals mainly with the demotic texts of these two important decrees, and *Das Verhältnis der griechischen und ägyptischen Texte in den zweisprachigen Dekreten von Rosette und Kanopus* (Papyrusinstitut Heidelberg, Schrift 5; Berlin, de Gruyter), which discusses the question in what language the decrees were officially formulated, and concludes that the first rough draft was in demotic and that this was worked up in Greek, which in turn was retranslated into demotic. G. BÉNÉDITE's article on the decipherment of the hieroglyphs also deals with the Rosetta stone (*Rev. Arch.*, XVI, 1922, 176 ff.). In the *Recueil d'Études Égyptologiques dédiées à la mémoire de Jean-François Champollion* (Bibliothèque de l'École des Hautes Études, fasc. 234, Paris, 1922) P. PERDRIZET examines (p. 93 ff.) the inscribed mosaic of Sheikh Zouede published by J. Clédat in *Annales du Service*, xv, 15 ff., which he regards as "a Graeco-Egyptian work, otherwise called Alexandrian, of the late imperial period, dating from the third or fourth century of our era."

An inscription from Hermopolis Parva, now in the Alexandrian Museum (Breccia's Catalogue, 110), is discussed by PERDRIZET (*Rev. Ét. Anc.*, XXIII, 281 ff.), who regards it as natural that the Achaean troops who remained in Egypt as κάτοικοι or κληροῦχοι should have founded there, thanks doubtless to the munificence of the Egyptian kings, a sanctuary of their national deities, Zeus Amarios and Athena Amaria. H. GAUTHIER publishes (*Annales du Service*, xxi, 203 ff.) ten grave-stelae from Kôm Abu Bellu, the necropolis of the ancient Terenouthis, showing a curious mixture of Greek and Egyptian style, though the language of the brief epitaphs is Greek: one of these is now at Alexandria and the rest are in the Municipal Museum at Tanta. Starting from the foundation-record (Dittenberger, *Or. gr. inscr. sel.*, 732), which falls between 193 and 186 B.C., and with the aid of other inscriptions, Greek and hieroglyphic, P. PERDRIZET has dealt with the foundation and character of the temple of the Lion God at Leontopolis, the capital of the nome of the same name, in the centre of the Delta (*C. R. Acad. Inscr.*, 1922, 320 ff.). From the Graeco-Jewish cemetery at Tell el-Jehûdiyeh, near the site of another Leontopolis, fourteen more grave-stelae have been brought to the Alexandria Museum. These are published by C. C. EDGAR (*Annales du Service*, XXII, 7 ff.) who assigns most of them to the Augustan age and points out that the community they represent is one formed mainly of Hellenized Jews speaking Greek, bearing in many cases Greek names (though Hebrew and Egyptian names also occur, e.g. Ἰησοῦς, Παῦλος, Σαββάθις, Φαβείρ, Φαμείρ, Ταοίρις) and using epitaphs which "are to a large extent indistinguishable from those of the gentiles." Four of them (Nos. 20-23) are in verse, showing, despite metrical, grammatical and orthographical errors, the influence of Greek literature and culture, while two others (24, 33) draw largely on poetic phraseology.

G. LEFÈBVRE has published two inscriptions from the Fayyûm, now in the Cairo Museum (*Annales du Service*, xxi, 163 ff.). One is on a lintel found at Theadelphia (Baṭn Harit), representing an architrave surmounted by metopes, triglyphs and *guttae*, and records the dedication of a ἐστιαγόριον and βαμός (?) on 3rd June, 140 B.C., to Ἦρας μέγας in the name of Ptolemy Euergetes II and Cleopatra III. The other is a metrical epitaph in eight elegiac couplets, not wholly devoid of merit, commemorating a girl of twenty; it is engraved on a gable-topped stele from Karanis (Kôm Ushim). The same scholar adds some notes (*Annales*, xi, 249 f.) to his article on the Fayyûm ἀνελία-records (*op. cit.*, xix, 37 ff.), accepting Wilhelm's conjecture Ἦρας in place of Ἦρας in stele G, calling attention to P. ROUSSET's article on the same texts (especially that of Euhemeria, stele F) in *Rev. Ét. Gr.*, XXIX, 173 ff., and adding a decree of 15th March, 76 B.C., granting ἀνελία to the temple of Isis at Ptolemais. P. PERDRIZET bases his remarks on Graeco-

Egyptian asyla (*Annales*, xx, 252 ff.) on the text relating to the sanctuary of Isis Sachypsis at Theadelphia (stele D). The god Ἡρώς has been discussed by LEFÈVRE (*ibid.*, 237 ff.), who regards him as the "Dieu Cavalier" brought by the Thracians into Egypt rather than an Egyptian god (Toum ?) who has changed his native name for a foreign one. The title Ἡρώς, which alone occurs in Thrace, is, he thinks, the Grecized form of a native Thracian name to which Ἡρώς more closely approximates. The writer also examines other representations of Ἡρώς on Egyptian monuments and a dedication from Theadelphia to Ἡρώς Σούβαρος, and distinguishes between the two types of the divine horseman in art; he publishes two new inscriptions from Theadelphia, (a) a stele with a picture of the god and a votive inscription of 28th September, 67 B.C., in which one Petosiris with his family dedicates τὸ πρόπυλον Ἡρώσι θεῶι μεγάλοι μεγάλοι, and (b) a lintel, dated in the reign of Ptolemy VII Euergetes II, recording how Φνεβσῆς, Τριφερόης his wife and their children dedicated τὸ πρόπυλον καὶ τὸν περιβολὸν Ἡρώσι θεῶι μεγάλοι μεγάλοι. We may note P. ROUSSEL's use of this article to illustrate a puzzling epigram of Callimachus (*Rev. Ét. Gr.*, xxxiv, 266 ff. Cf. C. C. EDGAR, *Annales*, xxii, 79 f.) and G. DARESSY's discussion of the appearances of the god Heron on coins of the Diospolite nome (*Annales*, xxi, 7 ff.).

G. LEFÈVRE has published (*Bull. Soc. Arch. Alex.*, n.s., v, 47 ff.) a series of inscriptions found by him and Léon Barry in 1903-4 painted on the columns of the temple of Acoris. They number thirteen and range from 285 A.D. to the late fifth or early sixth century: each records the rise of the Nile in August to a level which secured a satisfactory inundation, an event greeted μετὰ πάσης χαρᾶς καὶ θαρίας. On the latest of these texts and the occurrence in it of the word σημασία, which recurs on Alexandrian coins, G. LUMBROSO comments in *Aegyptus*, iii, 291. LEFÈVRE's account (*Annales*, xx, 41 ff.) of the discovery and excavation of the tomb of Petosiris in the great necropolis of Tûneh-Derweh, sixteen kilometres west of Mellawi station, contains (p. 45) facsimiles of two Greek graffiti, which he assigns to the third century B.C.; one records the names of the sons of Mithron who visited τὸ ἱερόν, the other consists of a metrical invocation of the dead Petosiris followed, as EDGAR points out (*op. cit.*, xxii, 78 f.), by a humorous reckoning in drachmas of the numerical value of the letters used in the epigram. G. MEAUTIS' work on Hermopolis Magna (*Une métropole égyptienne sous l'empire romain: Hermopolis la grande*, Lausanne, 1918) makes use of the available epigraphical materials. H. MUNIER has dealt (*Annales*, xxii, 49 ff.) with two Greek epitaphs found in 1914 in the cemetery of Al-Qariah bil Dâfir near Aphroditopolis (Kôm Eshkâf) and now in the Cairo Museum: one, dating from the third or second century B.C., commemorates a Chian, the other, of the first century, a Thracian, Παῖσις (i.e., Παῖσις) Διζαπῶλιος. In *Annales*, xx, 251 LEFÈVRE republishes and comments on a fifth-century inscription of Dêr el-Abyad in memory of "the most magnificent Count Caesarius, son of Candidianus the founder," which was previously published in the *Dictionnaire d'Archéologie Chrétienne*, s.v. Dêr el-Abyad. The collection of graffiti from the Memnonion published in 1919 by P. Perdrizet and G. Lefèvre is the subject of a valuable review by P. JOUGUET (*Journal des Savants*, 1921, 145 ff.). Of A. JACOBY's article on the inscription of the Ammonians in the Great Oasis in the Libyan desert (*Byz.-Neugr. Jahrb.*, ii, 148 ff.) I cannot speak from first-hand knowledge.

In the first fascicule of his *Inscriptions grecques et latines des tombeaux des rois ou éyringes à Thèbes* (Mémoires publiés par les membres de l'Institut Français d'Archéologie Orientale du Caire, xlii, 1920) J. BAILLET publishes, with a brief preliminary note, 1059 Greek and seven Latin graffiti, the great majority of which he has been the first to decipher, arranged in topographical order and illustrated in forty-one plates. The author is to be congratulated upon a truly remarkable achievement, for though the number of minor mistakes in accents, breathings and the like is regrettably large and more serious errors are by no means lacking, these do not very gravely detract from the scientific value of a work which represents an infinity of labour and patience. A review by A. WEIGALL appeared in the *Journal of the Royal Asiatic Society*, 1921, 606 ff. BAILLET has also dealt in detail with certain questions raised by these graffiti. In *C. R. Acad. Inscr.*, 1921, 58 ff. he investigates the two fragmentary texts which have been held to record visits of Marcus Aurelius and Lucius Verus, shows the baselessness of these interpretations, and proves that the second refers to a governor of the Thebaid, L. Aurelius Catulinus, known from other inscriptions and from a graffiti here first published. In an essay contributed to the *Recueil Champollion* above referred to BAILLET examines (p. 103 ff.) the graffiti which record the months in which visits took place and shows that these tell of eleven visits paid in autumn, twenty-two in winter and eleven in summer, while the similar records from the Memnon-colossus give respectively eleven, twenty-six and seven. Even more interesting is his article on Constantine and the Dadouchos of Eleusis (*C. R. Acad. Inscr.*, 1922, 282 ff.), based on the graffiti telling of the visit of Nicagoras son of Minucianus, ὁ δαδούχος τῶν ἀγωνιστῶν Ἐλευ-

οὐκ ἰσχυροῦς and an ardent disciple of Plato, who thanked τοῖς θεοῖς καὶ τῷ εὐσεβεστάτῳ βασιλεῖ Κωνσταντίνῳ (Dittenberger, *Or. graec. inscr. sel.*, 720, 721). It has usually been held that the date of this inscription must be prior to Constantine's profession of Christianity, i.e., between 306 and 312 or 315 A.D., but Baillet proves that it belongs to 326 and examines the policy of the Emperor, the purpose of Nicagoras' mission and the personalities of some of his possible companions as traced in neighbouring graffiti. W. SPIEGELBERG's impressive publication of graffiti from the Theban necropolis (*Ägyptische u. andere Graffiti aus der thebanischen Nekropolis*, Heidelberg, C. Winter, 1921) consists of 123 plates and a lithographed text dealing with some 1069 graffiti (inscriptions and drawings), of which only about fifty had been previously published; the Greek texts, however, are almost negligible (22 d, 140, 167 f, 168 f, 874). The work is reviewed by G. ROEDER in *Lit. Zentralb.*, 1922, 177 f. G. A. PAPAΘΑΣΙΛΕΙΟΥ has proposed (*Ἀθήνα*, xxviii, 9 f.) two conjectural emendations of a sepulchral epigram from Thebes published by T. Reinach and emended by W. Vollgraf (*Journal*, vii, 106).

Turning now to Egyptian documents in foreign collections, we may note A. E. R. BOAK's article (*Class. Phil.*, xvi, 189 ff.) on Greek and Coptic school-tablets in the University of Michigan, bearing alphabetic and syllabic exercises, P. PERDRIZET's magnificent publication of the Egyptian terra-cottas in the Fouquet collection, now in France (*Les Terres Cuites Grecques d'Égypte de la Collection Fouquet*, Nancy, Berger-Levrault, 1921), five of which bear brief Greek inscriptions (Nos. 110, 351, 352, 427, 442), and W. SPIEGELBERG's discussion of an amulet in the British Museum, representing a trinity of deities with the inscription

Εἰς Βάϊρ, εἰς Ἀθῶν, μίᾳ τῶν βία, εἰς δὲ Ἀκῶνι,
χαῖτε πατέρα κόσμου, χαῖτε τριμorpφε θεός.

He translates the puzzling words *μῖᾳ τῶν βία* by "und sie stellen eine Kraft dar" (*Arch. Rel.*, xxi, 225 ff.).

G. LUMBROSO has called attention to the aid rendered by Athenian, Delian or other inscriptions in the interpretation of titles and technical terms occurring in Greek inscriptions from Egypt (*Aegyptus*, ii, 35 f.), while D. COMPARETTI has published a curious, perhaps unique, text from Gomphi in Thessaly (*Atene e Roma*, ii, 167 ff.) recording the reply of an Egyptian oracle, perhaps that of Serapis, to the priestess of a women's association. In the inscription one whole line is left blank and the ends of all the lines are unengraved,—probably in order to reproduce exactly upon stone what remained upon a papyrus which had suffered some damage. "È dunque il sacro manoscritto contenente la parola divina venerato religiosamente come se fosse di mano della divinità stessa."

NOTES AND NEWS

THE Society's excavations at Tell el-'Amarnah are being continued this winter, and a large and powerful staff is already at work there. The command of the expedition is shared by Mr F. Ll. Griffith and our architect, Mr F. G. Newton. They are assisted by Mrs Griffith, Miss Moss, Mr Glanvil and Mr W. B. Emery. The general plan of operations has not yet been revealed, but it is probable that the season's work will include an attack on the attractive looking mounds which conceal the outlying village at the extreme north of the great 'Amarnah bay.

Since the last number of this *Journal* was published the Society's report on the excavations of the first two seasons at Tell el-'Amarnah has appeared under the title of *The City of Akhenaten*, Vol. I. The volume, which is the work of many hands, will readily be admitted to be the most comprehensive and attractive excavation report yet issued by the Society. It contains no fewer than 64 plates, many of which are in collotype and four in colour. It deals with the excavation of the main town site, the eastern village, the tomb-chapels, the building called Maru-Aten, and the small river-temple.

The International Congress of the History of Religions was held in Paris from the 8th to the 13th of October and attended by the Editor as a representative of the University of Liverpool. In the section of Oriental Religions a number of important papers were read. Professor Moret, who was to have presided over this section, was unfortunately prevented by his unexpected absence in Egypt. His place was at one sitting taken by Professor Naville, who read two papers, one to his section and another at a combined sitting of the whole Congress.

The winter lectures given by the Society continue to increase in popularity, so much so that it has now been found necessary to migrate from the room so generously placed at our disposal in years past by the Royal Society to the Small Central Hall at Westminster. This winter the first lecture will be given by Professor Percy Newberry on November 5th, at 8.30 p.m., the subject being "Wreaths and Garlands of Ancient Egypt." Sir Arthur Evans, F.R.S., will give the second lecture on December 11th on "The Ancient Relations of Crete to the Nile Valley."

The increased cost involved in the hiring of the Hall has rendered it necessary to make a small charge to all who are not members of the Society. Members (except those residing abroad) will receive for each lecture a ticket admitting one person, and further tickets can be bought at 2s. 6d. each, while season tickets admitting to the whole series will be issued at 10s.

It is satisfactory to know that Lord Carnarvon's excavations in the tomb of Tutankhamun are to be continued with the same efficient staff as last season. Mr Carter and his colleagues are in fact already on the spot and the tomb is now re-opened. The work still to be done will take at least two more seasons.

Mr Carter had hoped to write some account of the find for this *Journal*, but it will be easily understood that his time has during the past year been more than fully occupied. He has, however, done what is still better, for he and Mr Mace have actually published a volume which gives an account of the find up to the end of last season. It is fully illustrated, and written in such a way as to be perfectly comprehensible to the layman as well as satisfying, as a provisional report, to the specialist. We congratulate Messrs Carter and Mace on getting this book issued so rapidly: when all that they have had to do since last winter is taken into account it constitutes a very remarkable performance. The volume will be reviewed in our next number.

Readers of the *Journal* will be acquainted with the personality of Sir William Gell, whom Dr Hall in his article in *Journal*, II, 76 ff. has aptly described as an "Egyptological clearing-house" of the early nineteenth century. Early in the present summer a second-hand book dealer in Naples, where Gell lived from 1820 to his death in 1836, advertised for sale thirteen of his note-books. These were acquired at once by Dr Ashby, Director of the British School at Rome. Eleven of the note-books dealt with Italy and Greece, and two with things Egyptian. These last Dr Ashby was kind enough to hand on to the Editor of the *Journal*. There has not yet been time to work carefully over their contents, which at a first glance would appear more interesting from the point of view of the history of the pioneers of Egyptology than for our science itself. They may, however, prove to include records of inscriptions which have now disappeared. One of the two books contains copies of the texts of some of the Egyptian obelisks in Italy. This fact is of peculiar interest in view of a passage in a letter from Champollion, in which he asks Gell to correct the proofs of his work on the obelisks (p. 84 of Dr Hall's article).

A society entitled the Société Française d'Égyptologie has been founded at Paris with the object of uniting Egyptologists and others interested in the study of Egypt from the earliest times down to the Arab Invasion, and of enabling them to exchange their views. Further objects are the establishing of relations both with the specialists of other countries and with the French non-Egyptological public, and the publication of work referring to Egyptology. M. Bénédict is President, MM. Moret and Weill Vice-Presidents, M. Boreux Treasurer and M. l'Abbé Drioton Secretary. The address of the Society is at the Institut de Papyrologie, 2 rue Valette, Paris.

The organ of the newly formed society will be called the *Revue de l'Égypte Ancienne*, and will take the place both of the *Recueil de Travaux* and of the new series of the *Revue Égyptologique*. We wish the new foundation every success.

Dr Alan Gardiner and Professor Breasted will, in conjunction with M. Lacau, continue this winter their great work of collating the Coffin Texts of the Middle Kingdom. May we express the hope that when this work is completed some means will be found of making it available to scholars instead of locking it up in a card catalogue in one, or at most two or three places in the world. This is at present the fate of much of the best work done in our subject, and, though it is sometimes for financial reasons unavoidable, we are none the less bound to deplore it.

We should not be surprised if the early spring found Messrs Gardiner and Breasted in Sinai. The second volume of Dr Gardiner's and the Editor's *Inscriptions of Sinai*, contain-

ing the translations and commentary, has for some months been practically ready for press, and has been held back partly because both writers felt that some of the copies brought back by the expedition of 1906 might possibly be improved upon if a visit to the spot could be arranged. Should the winter's work on the Coffin Texts go well and rapidly Dr Gardiner hopes to realize next March this long planned scheme.

The exhibition of Mrs Davies' pictures of the Theban tombs at the Victoria and Albert Museum attracted many visitors; it closed at the end of August. In this connection it must be announced that a third volume of the Theban Tombs Series is about to appear. It is the joint work, like the preceding volume, of Mr and Mrs de Garis Davies, and is entitled *The Tombs of Two Officials of Tuthmosis the Fourth*. Both tombs, which are illustrated by four coloured plates and 34 plates in line and colotype, are of considerable interest; one belonged to a second priest of Amūn named Amenhotpe-si-se and the other to a standard bearer of the royal ship who bore the common name of Nebamūn; the latter contained, among other interesting things, an unusual picture of a crowd and an inscription of biographical character. The present price of the book to members of our Society is £1. 8s.; to non-members the price is £2. 2s.

The excavations of Dr Fisher at Beisān, not far south of the Sea of Galilee, have produced results of deep interest. It seems to emerge that the site was an Egyptian fortress in the XIXth and XXth Dynasties. A statue of Ramesses III has been found and two fine and well-preserved stelae of Sethos I and Ramesses II respectively. The former narrates a rising in northern Palestine, which was speedily quelled by the arrival of several Egyptian regiments. Ramesses II has, as usual, preferred self-laudatory bombast to historical narration, but there appears to be a reference to the building of the town of Ramesses, in which some Semites took part, just as we are told in the book of Exodus. A daily newspaper distorted this detail into the information that the stela narrates the building of the store-city of Ramesses by the Jews.

Volume XVI of the *Oxyrhynchus Papyri* is expected to appear some time in January, and we also understand that Volume IV of the *Rock Tombs of Meir* is also nearing completion.

On August 4th, 1923, occurred the death, at the age of 74 years, of Ahmed Bey Kamal, Honorary Curator of the Egyptian Museum. Ahmed Kamal was a pupil of Brugsch Pasha, and up to his retirement in 1914 was an Assistant Curator of the Museum. He was a member of the Institut Égyptien. Shortly before his death he had received the title of Pasha.

His works were very numerous, and included sections of the Great Cairo Catalogue, reports on various excavations made by himself, and translations into Arabic of the Museum Guides of Cairo and Alexandria. At the time of his death he was at work on a Hieroglyphic Dictionary in which he intended to lay special stress on the affinity of the Egyptian to the Semitic tongues. His native country owes him much, for he was almost the first Egyptian to arouse interest and enthusiasm in his countrymen for the antiquities of their land. He was lecturer in Ancient Egyptian Civilization in the Egyptian University, and had encouraged the founding of local museums in various of the smaller towns. Shortly

after Lord Carnarvon's discovery at Thebes he had persuaded the Egyptian Government to establish a School for the teaching of Egyptology, and it is a pathetic fact that two days after his death his family received the official information of his appointment as Lecturer in Egyptology and Director of the new school.

Many readers of the *Journal* must be acquainted with the water-colour drawings of Mr A. O. Lamplough, who for some years previous to the war painted each winter in Luxor, choosing his subjects mainly from scenes of archaeological interest. Mr Lamplough returned to his work in Egypt last winter, but only to be stricken down by typhoid fever, from which he has not even now sufficiently recovered to go out this season. We feel sure that those interested in his work will care to know that he still has for sale a number of his works. In a list of these we note such striking titles as "Midday heat in the Valley of the Tombs of the Kings," "The Tomb of King Tutankhamen," and "In the Valley of Death, Luxor." Mr Lamplough is at present at Tan-y-Goppa, Abergele, North Wales, and will be glad to submit specimens of his work to anyone interested.

NOTICES OF RECENT PUBLICATIONS

Quellenschriften der Griechischen Mystik, Band I. ÜBER DIE GEHEIMLEHREN VON IAMBlichus, aus dem Griechischen übersetzt, eingeleitet und erklärt von Dr. THEODOR HOPFNER, Theosophisches Verlagshaus, Leipzig.

The treatise commonly called *Iamblichi de mysteriis* is one of our most important documents for the history of Pagan religion in Egypt under the Roman empire; but it is one of the most puzzling. Dr Hopfner aims at making the meaning of this treatise accessible to readers who are not prepared to cope with the Greek text; but the help he gives will be of high value to those also who read the *De myst.* in the Greek.

The volume consists of Introduction, 20 pages; German Translation, 190 pages; and Notes, 79 pages. In the Introduction, Dr Hopfner gives what is needed to place the book in its historical setting and environment (including a sketch of the history of Neoplatonism), and discusses the much-disputed question of authorship. By whom, and at what date, was the *De myst.* written? His answer is that it was written by the Syrian Neoplatonist Iamblichus, between 300 and 304 A.D. As to the date, he is probably right, or nearly right; it may be put at about 300 A.D. But was Iamblichus the author? That is much more doubtful. Dr Hopfner gives his reasons; but he would perhaps admit that they fall short of making it certain.

The only external evidence is an anonymous note in some of the MSS., which tells us that Proclus said the book was written by Iamblichus¹. In some MSS., the genuine title (*Ἀβὺμμωνος κ.τ.λ.*) is accompanied by the superscription *Ἰαμβλίου*; but that superscription was probably suggested by the note, and can hardly be regarded as independent evidence.

What can be inferred from the contents of the treatise? What the book itself tells us is this: that Porphyry wrote to an Egyptian priest named Anebo a letter in which he propounded a series of *aporiai*; that Abammon, an Egyptian priest of higher rank than Anebo, undertook the task of replying to Porphyry's letter; and that the *De myst.* is the reply which Abammon wrote. The authenticity of Porphyry's letter is vouched for by Eusebius and others, and cannot reasonably be doubted. But what about Abammon? Most of those who have dealt with the question in recent times have agreed in thinking that Abammon was not a real man, but an imaginary person invented by the author, and that the author was either a pupil of Iamblichus, or Iamblichus himself. But is there after all any sufficient reason for holding that what the book says is untrue? Is it not possible that the *De myst.* is just what it professes to be,—i.e. that it was written by an Egyptian priest of high rank, who had acquired Greek culture and studied Greek philosophy, and who tried to find in the Neoplatonic theology justification and support for the traditional practices of the Egyptian cults? If Abammon is not a real man, he is well invented; his character is consistently maintained throughout (the few supposed instances to the contrary amount to nothing when rightly understood); and those who think the book was written by Iamblichus must give him credit for a dramatic talent such as the writings known to be his give little reason to suspect. Besides, what motive could the Syrian Neoplatonist have for masquerading in the disguise of an Egyptian priest, and for that predominant interest in Egyptian cults which is shown by the author of the treatise? Dr Hopfner tries to answer the question of motive; but his answer does not seem quite convincing.

At any rate, we know that the author, whoever he may have been, entitled his treatise "Abammon's reply to Porphyry's letter"; and we are free to call it by that name, and to say that "Abammon says" so and so, leaving it undecided whether this Abammon is a real man or a figment. What we read in the *De myst.* either was written by an Egyptian priest, or is what the author thought an Egyptian priest such as he depicts would have been likely to write; and in either case, the book is of much importance as throwing light on the history of religion in Egypt.

¹ Dr Hopfner reports the note as saying that "Proclus regarded the *De myst.* as a work of Iamblichus, on the ground of style." But that is not quite correct. What the note does say is (1) that Proclus, in his commentary on Plotinus, said that the author of the *De myst.* was Iamblichus; and (2) that (in the opinion of the writer of the note) the style of the *De myst.* testifies that Proclus was right.

The subject dealt with is *theurgia*. What is the meaning and purpose of *theurgia*, and does it really produce the results claimed for it by its advocates? These are the questions which Porphyry asks, and which Abammon, as spokesman of the Egyptian priesthood, answers. The word *theourgia* ('the working of a god or gods'), taken in its widest sense, might be used to denote any sort of ritual, public or private, if and so far as it is believed that there is a god at work in it. The Egyptian priest Abammon, even when he speaks in general terms, must be presumed to have in view chiefly rites practised in his own country. He speaks at times of rites by which worldly goods may be obtained and worldly ills averted, and he discusses divination at some length; but the kind of *theurgia* which he values most highly, and is most earnestly concerned in upholding, consists of a certain course or series of initiations, or sacramental rites, by means of which some few Egyptians (chiefly, it would seem, if not solely, Egyptian priests) attain to "union with the gods" (*ἔνωσις πρὸς τοὺς θεοὺς*).

A description of this system of initiations (but unfortunately a brief and vague description only) is given by Abammon in 10. 5 sq.:

ἡ δ' ἱερατικὴ καὶ θεωργικὴ τῆς εὐδαιμονίας δόσις καλεῖται μὲν "θύρα πρὸς θεὸν τὸν δημιουργὸν τῶν ὄλων," ἢ "τόπος ἢ αὐλὴ τοῦ ἀγαθοῦ"¹. δύναμιν δ' ἔχει² πρῶτον³ μὲν ἀγνείαν τῆς ψυχῆς, πολὺ τελειωτέραν τῆς τοῦ σώματος ἀγνείας· ἔπειτα κατάρτυσιν τῆς διανοίας εἰς μετουσίαν καὶ θίαν τοῦ ἀγαθοῦ καὶ τῶν ἐναντίων πάντων ἀπαλλαγὴν· μετὰ δὲ ταῦτα, πρὸς τοὺς τῶν ἀγαθῶν δοτῆρας θεοὺς ἔνωσιν. ἐπειδὴν δὲ κατ' ἰδίαν ταῖς μοίραις τοῦ παντός συνάψῃ (sc. τὴν ψυχὴν ἢ θεωργίαν), καὶ ταῖς δικηκούσαις δι' αὐτῶν ὅλαις θείαις δυνάμεσι, τότε τῷ ὅλῳ δημιουργῷ τὴν ψυχὴν προσάγει καὶ παρακατατίθεται, καὶ ἐκτὸς πάσης ὕλης αὐτὴν ποιεῖ, μόνῳ τῷ αἰδίῳ λόγῳ συννηωμένην.

οἷον ὁ (ὁ) λέγω· τῇ αὐτογένῳ (sc. δυνάμει τοῦ θεοῦ κατ' ἰδίαν συνάπτει τὴν ψυχὴν ἢ θεωργίαν), καὶ τῇ αὐτοκίνητῳ, καὶ τῇ ἀνεχώσῃ πάντα, καὶ τῇ νοεῖ, καὶ τῇ διακοσμητικῇ τῶν ὄλων, καὶ τῇ πρὸς ἀλήθειαν τὴν νοητὴν ἀναγωγ(ικ)ῇ, καὶ τῇ αὐτοτελεί, καὶ τῇ ποιητικῇ, καὶ ταῖς ἄλλαις δυνάμεσι τοῦ θεοῦ κατ' ἰδίαν συνάπτει, ὥς ἐν ταῖς ἐνεργείαις αὐτῶν καὶ ταῖς νοήσεσι [καὶ] ταῖς δημιουργικαῖς τελείως (ἐν)ίστασθαι τὴν θεωργικὴν ψυχὴν· καὶ τότε δὴ ἐν ὅλῳ τῷ δημιουργικῷ θεῷ τὴν ψυχὴν ἐντίθῃ. καὶ τοῦτο τέλος ἐστὶ τῆς παρ' Αἰγυπτίους ἱερατικῆς ἀναγωγῆς.

"The hieratic and theurgic process by which bliss is conferred is called 'the door of access to the God who is Maker of the universe,' or 'the place' or 'court of the good'; but the meaning of it is this:—to begin with, purity of soul, a purity much nearer to perfection than mere bodily purity⁴; then, a course of mental preparation (i.e. religious training and instruction) that will make the aspirant fit to partake of the good and to contemplate the good, and will rid his mind of all that would hinder him from this; and after that (comes, at the end, the sacramental rite by which) he is made one with the gods, who are the givers of all good. And when *theurgia* has (by a series of such initiations) successively joined the man's soul with the several departments of the universe, and with all the divine Powers that permeate the several departments, then at last it brings the soul up to the Demiurgus in his wholeness, and deposits it with Him, and puts it outside of all matter⁵; and there the soul abides, made one with the eternal Logos⁶ and with Him alone.

"What I mean is this: the theurgic process joins the soul (by a series of successive initiations) with the *self-generating* Power of God, and with the *self-moved* Power, and " etc., "and with the other Powers of God, one after another, so that the theurgic soul (i.e. the soul of the man who is subjected to this theurgic process) is completely placed in (i.e. blended with or absorbed into) the operations and the

¹ There can be little doubt that *θύρα πρὸς θεὸν* κ.τ.λ. and *τόπος* or *αὐλὴ τοῦ ἀγαθοῦ* are translations of Egyptian phrases used in the rites.

² *δύναμιν ἔχει* (= *δύναται*), "it means," in antithesis to *καλεῖται*, "it is called." Dr Hopfner translates *δύναμιν ἔχει* by "bietet die Kraft zu einer Seelenläuterung"; but "it means" makes better sense.

³ *πρῶτον* scripsi; *πρώτην* Parthey.

⁴ Dr Hopfner explains τῆς τοῦ σώματος ἀγνείας as meaning "bodily purification by means of ritual asceticism, or by means of the rites of initiation in the mysteries" ("oder durch die Riten der Mysterienweihen"). These last words ("oder durch," etc.) should be struck out.—In mystery-cults of all kinds, including those of the Greeks, the *mystae* were required to observe, before and during the ceremonies, certain rules of *ἀγνεία* (e.g. to abstain from certain kinds of food, and from sexual intercourse). But such rules had to do merely with *bodily* purity; and for the Egyptian rites of which Abammon is here speaking, that alone, he says, is not enough; the *soul* of the aspirant must be pure.

⁵ I.e. the soul is, by this last and crowning initiation, completely detached from the material world (or in other words, "released from the bonds of Heimarmene," which has dominion over the material world alone).

⁶ The word *λόγος* seems to be here used as a synonym for *νοῦς*; it denotes the Demiurgus, who is *νοῦς*.

hence it may be inferred with confidence that the Demiurgus of 10. 5, the God of whom all the other Egyptian gods are Powers, and with whom Egyptian priests are united by their *final* initiation, is Khnum¹.

Next after, but distinct from, the first *νοῦς*, there is (in 8. 3) a second, who is "the *demiurgic* *νοῦς*." ὁ γὰρ δημιουργικὸς νοῦς, (ὁ ἴ) καὶ τῆς ἀληθείας προστάτης καὶ σοφίας, ἐρχόμενος μὲν ἐπὶ γένεσιν, καὶ τὴν ἀφανῆ τῶν κεκρυμμένων² λόγων δύναμιν εἰς φῶς ἄγων, Ἀμοῦν κατὰ τὴν τῶν Αἰγυπτίων γλῶσσαν λέγεται.

συντελῶν δὲ ἀψευδῶς ἕκαστα καὶ τεχνικῶς³ μετ' ἀληθείας, Φθά....

ἀγαθῶν δὲ ποιητικὸς⁴ ὢν, Ὅσιρις κέκληται.

καὶ ἄλλας δι' ἄλλας δυνάμεις τε καὶ ἐνεργείας ἐπωνυμίας ἔχει ("and he is called by other names also, being variously named by reason of his various powers, and the various functions which he discharges").

The "second *νοῦς*" has no one Egyptian god-name assigned to him; for he is not any one temple-god; he is the sum of all the temple-gods together,—or rather, of all except Khnum, who is the "first *νοῦς*." In 8. 3, the writer splits the one Demiurgus-*νοῦς* of 10. 6 into two different *νοῦς*, and calls the second of them alone, and not the first, "demiurgic"; but in all else, the theology of the two passages is the same.

We may be fairly sure that in the list of Powers in 10. 6, the three gods named in 8. 3, viz. Amūn, Ptah, and Osiris, are included, and very likely in the same order; can the epithets by which these three are indicated be identified? τῇ διακοσμητικῇ τῶν ὄλων (δυνάμει) καὶ [τῇ ἴ] πρὸς ἀλήθειαν τὴν νοστήν ἀναγωγικῇ might possibly mean Ptah, who συντελεῖ ἕκαστα τεχνικῶς μετ' ἀληθείας (8. 3). Or is ἡ πρὸς ἀλήθειαν τὴν νοστήν ἀναγωγικῇ rather Thoth, who could hardly be omitted? Or is ἡ νοστήν δύναμις Thoth? Is the first item in the list (τῇ αὐτογόνοφ καὶ [τῇ ἴ] αὐτοκινήτοφ, [καὶ ἴ] τῇ ἀνεχοίσῃ πάντα) Amūn? And is the last Osiris? τῇ ποιητικῇ is too vague to indicate any particular god; but one might conjecture τῇ (ἀγαθῶν) ποιητικῇ (*uen-nofre*, as in 8. 3). Here is a knot of riddles; and those who will may amuse themselves by trying to guess the answers.

Is there any evidence elsewhere of the existence in Egypt of a systematic course of initiations such as is here described? There must have been, from early times, rites of consecration by which a priest was devoted to the service of some one god in this or that temple, and in some sense "united with" that particular god; and there must have been rites by which a man was raised from a lower order of the priesthood to a higher. But a comprehensive system such as this, a system in which the various consecration-rites connected with the cults of all the chief gods of Egypt are fitted together as parts of one process, and the aspirant is required to go through all these initiations in succession,—that is a different thing. It may appear improbable; and yet, even if no other evidence for it can be found, the testimony of Abammon (or of the author who speaks under that assumed name, if Abammon is held to be a figment) seems sufficient to establish the fact that about 300 A.D. such a system was in being. To what extent it was actually put in practice, we do not know. As each of the successive initiations would have to be preceded by a time set apart for preparation (*κατάρτισις τῆς διανοίας*), the whole course would probably extend over a number of years, and might even occupy the greater part of a lifetime. We can hardly suppose that more than a very few completed it, and attained to "union with the Demiurgus in his wholeness"; but a larger number may have begun it, and passed through some of the earlier stages of it.

If there was such a system at the time when the *De myst.* was written, it is most likely that it had not been long in existence. It may have been an innovation, adopted by the Egyptian priesthood (or by a progressive party among them that was affected by the influence of Greek philosophy) in the hope of putting fresh life and vigour into their national Church, and enabling it to hold its own against the growing and threatening power of Christianity.

There is some reason to suspect that a man named Bitys, whom Abammon calls a *prophetes* (i.e. an Egyptian priest of a certain rank), and who must have been of recent date, had a hand in the introduction of this new system, and promoted its acceptance by means of a pious fraud. The reading of the passage (8. 5) in which he is spoken of is not quite certain; but it appears to be there said that Bitys "found" inscribed in a temple at Sais, and translated into Greek, a Book of Thoth, till then unknown, in which

¹ Cf. Porphyry, *ap. Euseb. Pr. ev.* 3. 11. 45: τὸν δημιουργόν, ὃν Κρήφ οἱ Αἰγύπτιοι προσγοροῦσιν.

² The name *Amun* was commonly taken by Egyptians to mean "hidden."

³ Ptah was the craftsman-god, and was for that reason (as Abammon here goes on to say) identified by the Greeks with their god Hephaistos; but he was also a revealer of truth. Diog. Laert. *Proem.* 1. 1 says that the Egyptians say Ἡφαίστω ἀρξαι φιλοσοφίας.

⁴ ἀγαθῶν ποιητικὸς is a translation of *uen-nofre*, a frequent epithet of Osiris.

⁵ One is reminded of the finding of the Book of Deuteronomy in the temple at Jerusalem in the reign of Josiah.

was set forth the method of "hieratic *theurgia*" by means of which men were to "ascend to the world above, which is beyond the reach of Heimarmene," and "attain to the Demiurgus-God" (that is, the system of initiations described in 10. 5 sq.).

Those particular rites have long been extinct, and the terms used in the discussion are not now current; but the question at issue in the *De myst.* is, in its essence, one in which millions of men and women are keenly interested to this day. It is the question of the efficacy of sacraments; and we may see in Abammon, *mutatis mutandis*, a dignitary of the Catholic Church replying to doubts and difficulties on that subject which have been put forward by a Protestant theologian.

But the priest Abammon is at the same time a Neoplatonist. Having learnt the Neoplatonic philosophy from Greek teachers, he has contrived to persuade himself that this philosophy was taught in the ancient Books of Thoth, the sacred books of his national religion (just as another Egyptian priest, Chaeremon, about 250 years before, had contrived to find the doctrines of Stoicism in those same Books of Thoth, and as the Jew Philo found Platonism in the Books of Moses); and he tries (with very poor success) to show that religious rites and practices which have been in use in Egypt from an immemorial past, and in the efficacy of which he still firmly believes, are consistent with a philosophic theology derived from Plotinus.

In his translation, Dr Hopfner gives a German rendering which adheres closely to the Greek; but he supplements this rendering by inserting into it explanatory phrases, which are marked off by brackets. The reader, if he omits the bracketed phrases, will get what the Greek text *says*; if he reads the whole (including the bracketed phrases) continuously, he will get what Dr Hopfner takes the Greek text to *mean*. This is a somewhat unusual method of translation; but as employed by Dr Hopfner, it seems excellently suited for his purpose. The bracketed phrases serve as a running commentary, and give the explanations needed more concisely than they could be given by detached footnotes.

But will the translation enable those who read it to make out what the author meant? It will do so in part at least, though probably not wholly. The reader will get from it a true notion of Abammon's general position and attitude with respect to *theurgia* and philosophy, and will find definite and intelligible answers given to some at least of the questions discussed; but he will here and there come upon passages that present to him a mist of vague words from which no clear meaning emerges. That, however, is not the translator's fault; the blame must fall partly on the copyists, whose blunders have frequently changed sense into nonsense, and partly on the author, who seems at times strangely incapable of saying in plain words what he means. Indeed, one is almost inclined to suspect that now and again the author himself did not know what he meant,—that he had no definite thought to express, and was trying to hide his embarrassment under a cloud of empty verbiage. Moreover, in some parts of the book, Abammon is speaking of rites and practices which were well known to him and Porphyry, but are not known to us, and consequently assumes as understood already much that we do not understand, and tells us little or nothing about the very things about which we should have most wished to be informed. Perhaps the writer's reticences on these subjects may be also due in part to scruples about "revealing the mysteries" to the profane. But in spite of these deductions, anyone who can read German will find in Dr Hopfner's translation plenty of stuff that is worth reading; and those who study the Greek original will find his translation serve them as a helpful commentary.

There are only two editions of the Greek text,—that of Gale, 1678, and that of Parthey, 1857. Dr Hopfner's translation is based on Parthey's text, and he has adopted a different reading in a few places only. But that text is frequently corrupt; and no thorough or complete investigation of the MSS. has yet been carried out. A new and emended edition of the Greek text is much to be desired. That task Dr Hopfner has not undertaken; but his interpretation of Parthey's text will help to prepare the way for it.

Examining the translation in detail, one finds, as was to be expected, some things that seem to need correction. A few of these may be mentioned here.

Dr Hopfner translates the word *δύναμις* *passim* by *Energie*; and in 1. 4, where the three terms *οὐσία*, *δύναμις*, *ἐνέργεια* stand side by side, he writes *Energie* for *δύναμις*, and *Wirkungsmöglichkeit* for *ἐνέργεια*. Now it may be true that, in most of the many sentences in which *δύναμις* occurs, *energy* suits the context fairly well; but would it not be better to translate *ἐνέργεια* by *energy* (in places where that word is appropriate), and *δύναμις* by *force* or *power* (*Kraft* or *Wirkungsmöglichkeit*)?

Another frequently occurring word, *νοερός*, he repeatedly translates by *intelligible*. It might perhaps be going too far to say that no Greek writer ever used *νοερός* as a synonym for *νοητός*; but it is certain

that most Greek writers sharply distinguished these two words; and we know that Iamblichus (whom Dr Hopfner thinks to be the author of the *De myst.*) did so, for he spoke of the *νοητοὶ θεοὶ* as a class of gods distinct from the *νοητοὶ θεοὶ*. It would surely then be better to translate *νοητός* by *intelligible*, and *νοερός* by *intelligent* or *intellectual* (unless in some particular case there is cogent reason for doing otherwise).

In I. 2 (ὅσα περὶ ἡθῶν ἢ περὶ τελῶν εἴρηται, κατὰ τὸν ἡθικὸν τύπον διαστήσομεν) he translates *τελῶν* by *heilige Weihen* ("initiations"), and rejects Quillard's translation, "tout ce que nous dirons de mœurs et des fins." But Quillard is right. In connexion with ethics, *τέλος* cannot mean anything else than the *end* at which human action aims, or that at which men ought to aim, the *summum bonum* (as when the teaching of Epicurus was summed up in the phrase *ἡδονὴ τέλος*). Abammon is here referring to his discussion of *εὐδαιμονία* in IO. 1-7; and he there tells us that τὸ ἀνθρώπινον ἀγαθόν (i.e. the *τέλος* in the ethical sense) is "union with God."

In I. 9, Abammon is arguing against the view that the gods are *locally situated* in the several parts of the Kosmos over which they preside (e.g. that there are gods who are situated in the waters, and other gods who are situated in the atmosphere). It cannot reasonably be thought, he says, that the gods are thus spatially parted off from one another; for there is no community of *οὐσία* between τὸ διακόσμον and τὸ διακοσμούμενον (i.e. the incorporeal gods who govern, and the corporeal and spatial world that is governed by them, belong to two different orders of being); and if that is so, then ὥς τὸ μὴδὲν, ἵνα οὕτως εἴπω, κείται (τὸ διακόσμον) ἐν αὐτῷ (sc. ἐν τῷ διακοσμουμένῳ). I.e. "it cannot then be true that each of the gods is *locally situated* in that part of the material universe which is governed by him, and that he is thus *locally separated* from the other gods".—That is the sense required by the context, and must be what the author meant; though his Greek sentence is so overloaded with vague and ambiguous words, that it is not easy to make any sense at all of it; and there is probably some corruption in the strange phrase ὥς (or ὡς ἢ) τὸ μὴδὲν, which we have to take as meaning *οὐ* or *οὐδαμῶς*. But Dr Hopfner writes "If there were no community of being," etc., "then there could be no trace of," etc. (which implies that there is "community of being" between the gods and the corporeal and spatially extended world). I.e. he translates the Greek as if, instead of εἰ γὰρ οὐδεὶς ἐστὶ κ.τ.λ., ὥς τὸ μὴδὲν (=οὐ) κείται κ.τ.λ., it were εἰ γὰρ μὴδεὶς ἦν κ.τ.λ., οὐκ ἂν ἐκεῖτο κ.τ.λ.; and by so doing, he makes the author say just the opposite of what the author must have meant.

I. 15. Porphyry has argued thus: If the gods are pure *νόες* (intellects) without *αἰσθησις* (sense-perception), they cannot hear our words when we pray to them; and that being so, what is the use of praying? Abammon answers: The gods do not receive our prayers into themselves through organs of sense, ἐν ἑαυτοῖς δὲ περιέχουσι τῶν ἀγαθῶν τὰς ἐνεργείας τῶν λόγων, καὶ μάλιστα ἐκείνων οἵτινες διὰ τῆς ἱερᾶς ἀγιστείας ἐνδρυνόμενοι τοῖς θεοῖς καὶ συνερωμένοι τυγχάνουσι. Dr Hopfner translates as follows: "but the gods already include in themselves the things aimed at by the words of the good¹, and most of all, the things aimed at by those words which, in consequence of the holy rites of worship, are situated in the gods themselves and are united with them (i.e. the theurgic god-names and formulae; for according to theurgic doctrine, these 'true' and secret names of the gods are actually identical with the deities named and invoked by them)." That is, he takes *ἐκείνων* to mean *ἐκείνων τῶν λόγων*, those *prayers* which consist of potent names and formulae. But can the meaning thus obtained be considered satisfactory? A better sense can be got by taking *ἐκείνων* to mean *ἐκείνων τῶν ἀνθρώπων*², and translating thus: "the gods contain in their own being the realization (τὰς ἐνεργείας) of the goods which men ask for in their prayers,—those men especially who, by means of the sacred rites of initiation, have been implanted in the gods and united with them; for in that case, the divine confers with itself (αὐτὸ τὸ θεῖον πρὸς ἑαυτὸ σύνεστι, i.e. it is the god in the man that confers with the god), and the man does not speak to the god as one person to another, but the thoughts uttered in his prayers are thought by him and by the god in common (οὐδ' ὡς ἕτερον πρὸς ἕτερον (lacuna!) κοινοῦν τῶν ἐν ταῖς εὐχαῖς νοήσεων)." The initiated man has been "made one with" his god; (he can say to his god "I am thou, and thou art I"); and inasmuch as the good is ever present to the gods and is already attained or realized by them, and the man is one with his god, the good he prays for is already in his possession. (The word *νόησις* may include the operation of the will as well as that of the intellect; and perhaps it would not be departing far from the writer's meaning to say that such a man's will is blended

¹ "Die von den Worten der Guten angestrebten Ziele." This must, I suppose, be taken to mean "the things which good men ask for in their prayers."

² It may be suspected that *ἀγαθῶν* is a misreading for *ἀνθρώπων*. With that alteration, the ambiguity of the Greek would be diminished; but the text as it stands admits of the interpretation here proposed.

with his god's will, and that his prayer would take the form "Thy will be done,"—a prayer which cannot fail to be fulfilled, and is indeed fulfilled already.)

3. 22. Men summon daemons by verbal invocations and manipulations of material things; the daemons thereupon appear to them and reveal future events. By way of accounting for these facts, Porphyry has put forward a "paradoxical" hypothesis, "or perhaps one may say, two different hypotheses," says Abammon, who goes on to state them as follows: λέγεις ὡς (1) ἡ ψυχὴ γεννᾷ δύναμιν φανταστικὴν τοῦ μέλλοντος..., (2) ἡ τὰ προσαγομένα ἀπὸ τῆς ὕλης ὑφίσταται διὰ τῶν ἐνοουσῶν δυνάμεων δαίμονας. Is τὰ προσαγομένα nominative or accusative? If we take it as nominative, we get a sentence that is intelligible in itself, and consistent with the context. The first hypothesis is that "the soul (of the operator) generates a δύναμις capable of forming a mental picture of the future"; the second hypothesis is that "the things employed in the operation (e.g. plants, stones, etc. that have in them a supernatural potency, and parts of the bodies of dead animals) bring daemons into existence out of the matter (of which they consist), by means of the forces inherent in them." In what follows, Abammon discusses these two hypotheses alternately; and in dealing with the first of them, he takes the δύναμις generated to mean, not a mere faculty of the operator's soul, but a person distinct from the operator, viz. the daemon who appears and foretells the future. On either hypothesis alike then, a daemon is brought into being in the course of the operation; according to the first hypothesis, this daemon is generated by the operator's soul; according to the second hypothesis, he is brought into being by the material things which the operator employs.

Dr Hopfner takes τὰ προσαγομένα to be accusative, and makes ἡ ψυχὴ the subject of ὑφίσταται as well as of γεννᾷ. He translates thus: "our soul generates the capability (*Fähigkeit*) of shaping the future in her 'phantasy-part'; or she (*sc.* our soul) employs (*verwendet*) as (future-revealing) daemons that which is offered by the matter," etc. But ἡ ψυχὴ τὰ προσαγομένα ὑφίσταται δαίμονας is strange Greek; ὑφίσταται cannot mean "employs as"; and the meaning which he gives to this sentence cannot be reconciled with the discussion which follows.

3. 24. Porphyry has said that prophesying is caused by πάθος ψυχῆς (a "perturbation" of the prophet's soul). Replying to this, Abammon says τὸ μὲν δὴ καταλαμβάνεσθαι τὰς αἰσθήσεις πρὸς τὸ ἐνάντιον τίειν ἢ οἶον ἀπὸ λέγειν. Dr Hopfner renders τὸ καταλαμβάνεσθαι τὰς αἰσθήσεις by *Das Erfassungsvermögen durch die Sinneswahrnehmung* ("the faculty of apprehension through sense-perception"); from which it appears that he would take the literal translation of the Greek to be "the fact that the senses apprehend (things)." Now καταλαμβάνειν often means "to apprehend"; but καταλαμβάνεσθαι (*med.*) in that sense is rare; and if the word could be so used, that meaning would not suit the context. The verb καταλαμβάνειν may also mean "to repress, arrest, or inhibit"; and it is the passive in this latter sense that is here required. The word *catalepsy* comes from καταλῆψις (τῶν αἰσθήσεων) in this sense. The Greek may be translated thus: "The fact that the (prophet's) senses are inhibited (during his ecstasy or trance) tends to show the opposite of what you say." The prophet, at the time when he is seeing his vision or uttering his prophecy, is manifestly in an abnormal state; he is "beside himself," and does not see or hear the things around him. Porphyry has suggested that this abnormal state is nothing more than a πάθος ψυχῆς, a perturbed or morbid state of the man's own soul. But Abammon would account for it in another way; he holds that the man is possessed by a god, and that the inhibition of his bodily senses is caused by the god's presence in him, or in other words, by his temporary "union" with the god.

In 8. 2, Abammon states the doctrine of "the Egyptians" (*i.e.* the doctrine which he has in fact learnt from the Neoplatonists, but which he mistakenly supposes to be taught in the Egyptian Books of Thoth) concerning the supreme deity. The reader of this paragraph in Dr Hopfner's translation is likely to find himself bewildered; and if he turns to Parthey's text, he will not get much help from that. The fact is that it is impossible to make sense of the passage without rewriting the Greek. It might be conjecturally emended as follows:

πρὸ τῶν ὄντως ὄντων καὶ τῶν ὄλων ἀρχῶν ἐστὶ θεὸς εἷς, πρότερος καὶ τοῦ πρωτο(γόν)ου θεοῦ καὶ (θεῶν) βασιλείας, ἀκίνητος ἐν (τῇ) μονότητι τῆς ἐαυτοῦ ἐνότητος μένων· οὔτε γὰρ νοητὸν αὐτῷ ἐπιπλέκεται οὔτε ἄλλο τι· παράδειγμα δὲ ἰδρυται (οὗτος) τοῦ αἰτοπατόρος (καὶ) αἰτογόνου [καὶ μονοπατόρος] θεοῦ, τοῦ ὄντως ἀγαθοῦ¹. μείζον γὰρ τι (ὁ εἷς), καὶ πρῶτον, καὶ πηγὴ [τῶν πάντων] καὶ πυθμὴν (πάντων) τῶν νοουμένων, πρὸ τῶν ἰδεῶν ὦν². (αὐτὸς γὰρ τὸ προόντως (ἀγαθόν) ἐστὶ, καὶ τῶν νοητῶν ἀρχή· διὸ καὶ νοητάρχης προσαγορεύεται)³.

¹ ἀγαθοῦ masculine. The second God is ὁ ὄντως ἀγαθός; the first God is τὸ προόντως ἀγαθόν.

² I have altered πρῶτον ἰδεῶν ὄντων (Parthey) into πρὸ τῶν ἰδεῶν ὦν.

³ In Parthey's text, the words αὐτὸς γὰρ...νοητάρχης προσαγορεύεται stand farther on, at the end of the description of the second God. But they are applicable to the first God only, and not to the second God; I have therefore transposed them to this place.

ἀπὸ δὲ τοῦ ἑνὸς τούτου ὁ [αὐτάρκης] (αὐτοπάτωρ) θεὸς ἑαυτὸν ἐξέλαμψε· διὸ καὶ [αὐτοπάτωρ καὶ] αὐτάρκης (δομάζεται)· ἀρχὴ γὰρ οὗτος (ἀρχῶν) καὶ θεὸς θεῶν, μόνος ἐκ τοῦ ἑνός· προσούσιος (οὗτος), καὶ ἀρχὴ τῆς οὐσίας· ἀπ' αὐτοῦ γὰρ ἡ οὐσιότης καὶ ἡ οὐσία· διὸ καὶ οὐσιοπάτωρ καλεῖται. [αὐτὸς γὰρ... νοητάρχης προσαγορεύεται.]

"Prior to the things that truly are¹, and to all the *principia*², is the God that is One. He is prior even to the first-born God and King of gods³. He abides motionless in the solitude of his own unity; for none of the *intelligibilia*⁴, nor aught else, is interwoven with him. Firm-seated he abides, archetype of the God who is self-generated and self-generating, the God who is truly good⁵. For the One is greater (than that second God); he is the first; he is source and root of all objects of thought, being prior to the archetypal forms; for he is the Good,—that Good which is prior even to the things that truly are,—and he is the source of the *intelligibilia*⁶; wherefore he is called *Noetarches* (source or cause of the *νοητά*).

And from the One did the self-generating⁷ God produce himself, by shining forth from him; wherefore this second God is called *Autarches* (cause or author of his own being). The second God is *principium* of *principia* and God of gods; he is the monad that issues from the One. He is prior to (corporeal or material) substance, and *principium* of substance; for from him are substantiality and substance; wherefore he is called *Utiopator* (father or generator of substance)."

Even when thus emended, the passage can hardly be called lucid; but it has a meaning, for those who are familiar with the terminology of Platonism. The doctrine is that of Plotinus. Abammon's first God and second God are the first and the second of the three divine *hypostases* of the Plotinian system. Abammon's θεός εἷς (also called τὸ πρῶτον ἀγαθόν, if the conjecture ἀγαθόν for εἷς is accepted) is the εἷς (also called ἀγαθόν) of Plotinus; and Abammon's second God, who issues from the θεός εἷς, is the νοῦς of Plotinus, who in like manner issues from τὸ εἷς.

But the use of the word οὐσία in the last clauses is peculiar. This word was commonly used by Platonists as a synonym for τὰ ὄντως ὄντα. But it cannot have that meaning here; for it is the second God that is called ἀρχὴ and πατὴρ of οὐσία, and the second God (who corresponds to the Demiurgus of Pl. *Timaeus*) is ἀρχὴ and πατὴρ, not of τὰ ὄντως ὄντα, but of the material universe and its contents. The word οὐσία must therefore be taken to mean *material things*. This use of it is Stoic rather than Platonic; and perhaps the writer was, in these last phrases, influenced by some Stoic authority (possibly Chaeremon, whose book on Egyptian religion he speaks of elsewhere in the *De myst.*).

The first God "is called" νοητάρχης; the second God "is called" αὐτάρκης and οὐσιοπάτωρ. These three Greek words occur nowhere else⁷; and it seems probable that they are translations of Egyptian words used in worship as titles or epithets of certain gods. Can their Egyptian equivalents be ascertained? It appears from what has already been said that Abammon identified the second God of Neoplatonism with Khnum; and if so, the Egyptian words represented by αὐτάρκης and οὐσιοπάτωρ ought to be cult-epithets of Khnum. The words αὐτοπάτωρ and αὐτογόνος, here applied to the second God, express the same notion as the Egyptian term *ka-mut*, from which *Kmḥ*, a name of Khnum, is said to be derived.

Abammon repeatedly speaks of "release from the bonds of Fate (*εἰμαρμένη*)" as the object of men's aspiration, and the thing to be sought and obtained by means of *theurgia*. Dr Hopfner (pp. 53, 59, 189, 196-7) explains "the bonds of Fate," release from which is sought, as meaning the necessity of undergoing

¹ τὰ ὄντως ὄντα are the real and eternal entities, in contrast to τὰ γιγνόμενα, the things that come to be and cease to be.

² The ἀρχαί are the causes or sources of the existence, life, and movements of things; regarded as personal, they are the gods by whom the world is governed.

³ I.e. the Demiurgus, who is the second God.

⁴ The νοητά are the things apprehensible by thought alone and not by sense, in contrast to τὰ αἰσθητά. They are identical with τὰ ὄντως ὄντα. The νοητά are correlative to νοῦς, who is the Demiurgus and second God; it is the second God that thinks them. The first God does nothing; he (or rather it) does not even think; and so "no νοητὸν is interwoven with him."

⁵ As νοῦς and νοητά are correlatives, and neither can exist apart from the other, it may be said either (as Abammon says here) that the νοητά issue from the One, or (as he says in the next sentence) that the second God (i.e. νοῦς) issues from the One. Either statement implies the other.

⁶ The One, being absolutely inactive, cannot be said to generate anyone or anything; the second God is therefore said to "generate himself," by issuing from the One as the sunlight issues from the sun.

⁷ οὐσιάρχης (which is equivalent to οὐσιοπάτωρ) occurs in a similar connexion in the Hermetic *Asclepius* (Ps.-Apuleius), c. 19. It is there used in a similar sense, but is applied to several departmental gods, and not to the one Demiurgus only.

a series of reincarnations. But it is not of release from reincarnation (certainly not solely or chiefly) that Abammon is thinking when he speaks thus, but of something to which a man may attain during his present life on earth. *Heimarmene* means the laws of nature by which material things are governed,—the operation of the physical forces which act on bodies (and which, according to the opinion commonly held in Abammon's time, are set in action here below, and kept in action, by the influences of the stars). *Heimarmene* has dominion over bodily things alone. Now man is partly corporeal, or earthly, and partly incorporeal, or divine. As long as the corporeal part of him has the upper hand, he is "a slave of *Heimarmene*"; his actions are determined by physical forces which act on and in his body, and by the passions which those forces excite in him; and he can no more help yielding to the impulses which beset him than a stone can help falling. But if he "alienates himself from his body," and gives full scope to that higher self in him which is incorporeal and divine, then *Heimarmene* no longer has any hold on him; he is "united with the gods" to whom his higher self is akin, and lives the life and thinks the thoughts of the gods with whom he is united; and thenceforth he is beyond her reach. *Heimarmene* may do what she will with the body to which his soul is still in some sense linked; it matters not to him; the body is, for him, a mere lump of dirt, and he does not care what happens to it. That is what men (or some at least) meant in those times when they spoke of "release from the bonds of *Heimarmene*"; and so far, Porphyry and Abammon thought alike, or nearly alike. But how is this "release" to be got? Men such as Plotinus,—and Porphyry, so far as he adhered to the teaching of Plotinus,—said it was to be got by contemplation; Abammon said it was to be got by *theurgia*, that is, by means of sacraments¹.

A longer list of *errata* might be made; but most of the mistakes are of small importance; and readers will find reason to admire the skill the translator has shown in reproducing the sense of many an obscure Greek sentence in clear and fluent German.

In the Notes, Dr Hopfner's wide-ranging studies in Pagan religion and magic (some of the results of which have been previously published in his *Griechisch-Ägyptischer Offenbarungszauber* and elsewhere) have enabled him to bring together a large mass of illustrative matter, much of which would not be easily accessible without his help.

Here also, a few inaccuracies may be found. For instance, he says (Notes 78 and 126) that the Celsus against whose book Origen wrote was an Epicurean. But the opinions expressed in that book were such as no Epicurean could possibly have held; the teaching of Epicurus was flatly contradicted in it. Origen read and criticized the book, but knew nothing about the man by whom it had been written about 70 years before. He had heard of a man named Celsus (possibly Lucian's friend Celsus) who was an Epicurean; and being well aware that the views expressed in the book were *not* Epicurean, he (very oddly) says he suspects that the author of it was an Epicurean at heart, but was concealing his real opinions, and pretending that he was not one. That however is impossible; and it is evident from the extracts quoted by Origen that the man was not an Epicurean, but was (more or less) a Platonist.

The account which Dr Hopfner gives of the Greek *Hermetica* (Note 139) needs some corrections. He repeats an old mistake in saying that *Poimandres* is the title of a collection of 18 tractates. The *Corpus Hermeticum* is a collection of distinct and unconnected documents. *Poimandres* is the title of the first of them alone; and to call the whole collection by that name is like calling the whole of the New Testament "the Gospel according to St Matthew."

But a few mistakes in details such as these count for nothing in comparison with the mass of information that is packed together in small compass in the Notes; and in them, as well as in his translation, Dr Hopfner supplies very welcome aid to the study of this perplexing treatise.

W. SCOTT.

Handbuch der christlichen Archæologie. By C. M. KAUFMANN. Paderborn (1922). xviii+684. 329 illustrations.

This is the third edition of a work whose second edition appeared in 1913; but it is much more than a re-issue and shows considerable extension and enrichment. It is a manual dealing with architecture, mosaics, painting, sculpture, gems, inscriptions, numismatics, and textiles illustrative of Christian antiquity, on lines similar to Leclercq's *Manuel d'archéologie chrét.* (1907) and so has a narrower scope than

¹ Abammon would doubtless have added that suspensions of *Heimarmene* (i.e. of natural law) in the material world (e.g. miraculous healings of bodily disease) were possible, and could be obtained by means of certain lower kinds of *theurgia*; and Porphyry would perhaps have admitted this to some extent.

the Benedictine *Dictionnaire d'archéologie chrétienne* which includes such subjects as liturgy, institutions, monasticism, etc. Within the limitations thus imposed by the sense in which "archaeology" is taken this is an eminently serviceable manual, which will, however, need to be supplemented by more specialised treatises in various details but, as a general hand-book, is certainly the completest and best arranged of those at present available. It is of course inevitable that a certain amount of material already easily accessible is here reproduced, but the work has several distinctive features. In the preliminary pages Mgr. Kaufmann cites the phrase "oriens docet" and this gives the key-note of his manual. The author is especially associated with the excavation of the church and monastery of St. Menas in Mareotis, has visited Greece, Asia Minor, Constantinople, Syria, and Egypt, and draws freely from the material available in what were the eastern provinces of the Empire. Egyptian material is employed to illustrate each section of the work and in each case is co-related to the material existing elsewhere in a way which adds greatly to the utility of the manual. Thus we find sections dealing with the form of the Egyptian basilica (pp. 191-3), the Egyptian monastery (pp. 230 sqq.), Egyptian iconography (pp. 360 sqq.), etc. Mgr. Kaufmann is not the first to make use of oriental material in the treatment of Christian archaeology, but he has adjusted it more consistently to its proper place in the cultural history of the church than has been done by most of his predecessors. As a rule manuals of this kind have been compiled by those who have analysed and criticised the work of others and have not themselves been explorers, and normally, perhaps, this separation between the functions of the explorer and the co-ordinator is best; for one thing the explorer finds it difficult to maintain a due proportion between the material with which he has had immediate contact and that known to him only by the work of others.

Christianity in its earlier stages was essentially a Hellenistic religion which arose on the shores of the Mediterranean amongst the Greek-speaking population of the Empire and only gradually percolated into the vernacular-speaking hinterland. The bulk of its material is gathered from the provinces of the Empire; but Hellenistic culture overflowed political boundaries and some most important material can be gathered from the area of overflow, its importance largely increased by the fact that such external areas formed a kind of backwater where ancient relics lingered untouched by the forward movement of the main stream. Some of this material, e.g. in the land east of the Euphrates, and in China, is employed by Mgr. Kaufmann, but the very important Celtic material to which L. Bréhier (*L'Art Chrétien*, Paris, 1918) amongst others has drawn attention has been ignored, and no notice is taken of the culture drift which carried Christian and Byzantine art westwards across the Sudan to the Yoruba country, although in the topographical list (p. 78) Mgr. Kaufmann includes Nubia and the Sudan and makes a passing reference to Abyssinia. So far as the Celtic material is concerned the addition most desired would be the material available in Ireland where the historic church owed its formation to the monastic movement spreading out from Egypt, and whose isolated position and consequent stagnation favoured the survival of very early types derived from that movement.

The short introductory résumé of the history of Christian archaeology (pp. 1-48) is a natural preliminary. So far as it extends it is well done and contains some useful information, though it hardly succeeds in bringing out in very graphic form the evolution of those theories which guide and control archaeological research as a branch of historical science, or at least which we at the moment accept as fulfilling this function. This is followed (pp. 49-74) by a good summary of the literary sources and the actual material available; and this by a topographical table (pp. 75-109) which is a very useful feature, and seems to be fuller and clearer than any similar index of material according to its geographical distribution. The book is well printed, amply documented, fully illustrated in a way superior to any previous manuals on this subject—though some of the figures of coins on page 629 are painfully small—and is equipped with a very full index.

D. O'LEARY.

Early Egyptian Records of Travel, IV. Tuthmosis III.—The "Stele of Victory"—The Great Geographical Lists at Karnak. By DAVID PATON. Princeton University Press. 1922. 115 pp. \$ 15.00 nett.

In his fourth volume Mr Paton pursues the same method of publication as in his earlier volumes: he reproduces his immense material in typescript with hieroglyphs and illustrative drawings added by hand, the whole photographed down. What we have already said of the earlier volumes submitted to us for review could only be repeated here, and it seems unnecessary to repeat our former criticism at length. The trouble is that the material is so vast that it is impossible to see the wood for the trees: nobody but a specialist on the XVIIIth Dynasty, who had no time to do or think of anything else, will be able to appreciate the

book. In this volume cuneiform as well as hieroglyphic material appears. Mr Paton increases his mass of material unnecessarily, because he includes all sorts of obsolete and useless references which were really hardly worth the trouble he takes over them. He is in fact uncritical in his method. He also gives us long excursions upon extraneous subjects: for instance, in dealing with the Hymn of Victory, he enlarges at length on maces, lions, boomerangs, and jackals, including much interesting material that would have been much better published as separate articles in the archaeological journals. Certainly his industry is colossal, and the book will be a mine of references. Mr G. V. Welter is again to be congratulated on his wonderful typewriting.

H. R. HALL.

Egypt and the Old Testament. By Professor T. E. PEET. Liverpool: University Press, 1922.

In his preface Professor Peet apologizes for having produced "yet another book on Egypt and the Bible," but he need not have done so. All that there is to be said on this subject has by no means yet been said, even on the basis of our present knowledge, nor shall we attain certainty on such matters as the Exodus, probably, until after many more decades of discovery and study. It is on the subject of Israel's sojourn in Egypt and the date and route of the Exodus that, of all the questions treated in this book, we really know least and are least certain. And as it is precisely this very matter that is popularly considered to be known and settled, whereas it is nothing of the kind, we can welcome Professor Peet's book as stating the facts.

All scholars who know Professor Peet's work on archaeology know that theories based on no known facts he will have none of. Professor Peet takes the main contacts between the O.T. peoples and Egypt in historical succession, beginning with the journey of Abraham and ending with the Onias temple in the second century B.C. He naturally does not find much to say on the first question so far as Egypt is concerned, except to deny (in which we agree) that the story of Abraham's visit need be a mere doublet of Jacob's. But he gives a most useful analysis of the Abrahamic story and rightly points out the great interest of the fourteenth chapter of Genesis in connexion with modern Babylonian discoveries. There can be little doubt that Amraphel is the historical Hammurabi, that Chedorlaomer is an Elamite Kudur-Lagamar whom we do not yet know from contemporary records, and that Tid'al "king of the Goyyim" was a Hittite Dadhaliya (the Egyptians transliterated this name as Tid'ul or Tod'al: Sayce, in Garstang's *Hittites*, 324, n. 4, see my article *Journal*, 1922, 220), whatever we may think of "Arioch of Ellasar." Professor Langdon will hardly approve of Professor Peet's objection to the identification of "Ellasar" with Larsam. The interest of the identity of the names of Sarah and Milcah with Sharrātu and Milkātu, the consorts of the Moon-god of Ur and Haran, is rightly pointed out.

But Professor Peet is a little unwise in making so much play with Babylonian dates for Hammurabi in trying to date the Abrahamic period, now that many Assyriologists reject Kugler's astronomical date for the First Dynasty of Babylon, and that Hammurabi is being brought down again to 1950 B.C. and the capture of Babylon by the Hittites to 1750 instead of 1926. The sojourn in Egypt before the Hyksos Professor Peet naturally refers to the period of the Hyksos. In dealing with the Exodus he is no doubt right in rejecting the Meneptah theory. We do not know who the Pharaoh of the Exodus was. My own belief that (as Josephus thought) the Exodus is nothing whatever but the Expulsion of the Hyksos (or an episode of it) looked at from the Hebrew point of view is not regarded with favour by Professor Peet: as he rightly says, it is not generally accepted because (if the Khabiru of the Amarna letters were the Hebrews) it makes the sojourn in the wilderness last 200 instead of 40 years. Personally I see little to object to in this. "Forty" is but a Semiticism for "many," and the Arabian wanderings of the Hebrews may just as well have lasted two centuries as half-a-century. Professor Peet and I agree in rejecting Meneptah, but he does not suggest an alternative. With regard to the route of the Exodus he definitely rejects the southern route outlined by Naville in favour of the northern, suggested by Gardiner's identification of Avaris and Raamses with Pelusium. If Avaris was Pelusium, it seems to me we have an argument in favour of the identification of the Exodus with the Expulsion of the Hyksos which Professor Peet has not noticed. And it may be that there is some historical basis for the tradition of the overwhelming of Pharaoh's chariots in the *Yām Sūph*, as a force of Egyptians pursuing along the marshy shore of Serbonis might well be caught by the sea. But Amosis was certainly not drowned himself, nor does Exodus xiv say he was, though his army was destroyed. That Aahmes son of Abana says nothing about the disaster is natural enough, if it actually happened in his time. With regard to the further route, the O.T. is decisive against the Hebrews

having gone on retreating by the sea-road, "the way of the land of the Philistines," after the disaster to the pursuers at Baal-zephon, "though that was near": if the Sinai of Christian and Moslem tradition is the real Sinai of the Exodus, they must have now turned south to it across the wilderness. Professor Peet points out, however, that this tradition is no older than the third century A.D., and that the real Sinai was in Edom, possibly (as some have thought) even, as Beke suggested long ago, E. of the Gulf of Akaba, in which case the Israelites will have journeyed direct across the desert (away from the way of the land of the Philistines) to Kadesh ('Ain Qadis) and then to Edom. Professor Peet does not notice the extraordinarily interesting fact of the Egyptian names of some of the priestly leaders of the Hebrews,—Moses, Phinehas, Hophni, and Levi,—and the Egyptian character of the Ark, the Golden Calf, etc. Nor does he touch upon the question of the possible relationship of Akhenaten's Aten-worship to the wisdom of the Egyptians which Moses learnt at On, or to the possible effect of Heliopolitan doctrine on the nascent monotheism of the Hebrews. But here no doubt he preferred not to venture into a realm of pure hypothesis, interesting though it be.

The mention of Akhenaten and his possible Disk-city (Khinatuni) in Palestine brings us to the view, which I have adopted, that the Khabiru of the Amarna letters were the actual Hebrews of the Invasion. This view seems to commend itself to Professor Peet, on the whole. The weak point of the theory is the fact that none of the personal names of the Hebrew legend appear in the contemporary records; but this cannot be pressed, as the letters do not mention any of the chiefs of the Khabiru or Khabbatum (*SA-GAZ*, "robbers," as they were naturally regarded by the Canaanites).

In dealing with the Solomonic contacts Professor Peet prefers to regard Shishak as the king who took Gezer and gave it to Pharaoh, though this view seems to me to involve chronological difficulties; and he rejects the identification of Zerah "the Ethiopian" with the Egyptian king Osorkon, though it is at least curious that the pharaoh who must have been the contemporary of Asa has all the consonants of his name except the last practically identical with those of the name of the traditional "Zerah." The coincidence seems to me to be too strong to be a coincidence, and the name in the Hebrew tradition might very well be much altered in transmission and transcription.

Similarly, Professor Peet denies the identity of the So or Seve of the O.T. with the Ethiopian king Shabak, which I have accepted. Here I admit he has reason on his side, and perhaps he is right; though I do not admit that a *bond-fide* attempt to explain a difficulty need be described as "a pure guess" (p. 172). Is it not one's business to "guess," i.e. to seek for explanations of difficulties?

On the subject of Pharaoh Necho and Jeremiah (Chap. VIII) we now have information from contemporary records (Mr Gadd's discovery of the contemporary Babylonian record of the fall of Nineveh; see review below) that puts a new complexion on the whole matter, especially on the relations between Egypt and Assyria, which were not hostile, but rather the reverse. Professor Peet will need to rewrite this chapter for the second edition of his book that will, one is sure, not be long in coming.

The book ends with an account of the extraordinarily interesting Jewish settlement at Syene in Egypt in the fifth century B.C., with its sacrifices and temple of Yahweh and the contemplar goddesses Ashima and Arath (like Sharrātu and Milkātu, the ancient companions of the moon-god Sin), and with a refutation of Professor Petrie's view that Tell el-Yahudiyah is the site of the temple of Onias.

Professor Peet is perhaps somewhat of an iconoclast, in spite of his care and caution. But this makes his image-breaking, when it happens, very difficult to repair. When he is definite, he has ample reason for his faith: when he is indefinite, as he often is, he does not consider that he has any right to be anything else. He writes in the true scientific spirit, and his book can be cordially recommended to "lay-folk," while scholars, and especially Egyptologists, will welcome his new presentment of our knowledge on this subject at the present time.

H. R. HALL.

The Fall of Nineveh: the newly discovered Babylonian Chronicle No. 21901 in the British Museum. Edited with transliteration, translation, notes, etc., by C. J. GADD, M.A., Assistant in the Department of Egyptian and Assyrian Antiquities, British Museum. With a photographic reproduction and six plates. Printed by order of the Trustees. 1923. Pp. 42. 4s. 6d.

This is the commendably quick publication of the important Babylonian tablet discovered by Mr Gadd early this year among the cuneiform treasures of the British Museum. The Trustees have been able to place at the disposal of historians as soon as possible one of the most important contemporary documents

of ancient history that has ever been discovered. It is no less than an almost contemporaneous Babylonian account of the Fall of Nineveh, which we now know with certainty took place not in the year 606 as has generally been supposed (since the old date 626 has long been abandoned) but six years earlier, in 612 B.C. As a chronicle it is most interesting from the general confirmation it gives to the accounts of the classical historians, especially Diodorus, who is shown by it to have derived his information from traditions which gave by no means an unfaithful impression of the actual events. It is also most interesting as exhibiting to us (in none too flattering a manner) the real part of Nabopolassar and the Medes in the final war, which is shown to have resembled in no small degree that of the Greeks in the late Balkan War: the clever Babylonian did least of the fighting (in which he was by no means uniformly successful) and obtained most of the spoil. The part played by the Medes in the war is indeed in relation to that of the Babylonians by no means unlike that of the Serbs in the Balkan struggle, while the barbarian Scythians or "Um-mar-Mauda," before whom the Assyrians could never hold their own, much resemble the Bulgars. The Assyrians however did not resemble the Turks so much: in the first place, they made a most creditable and often victorious resistance, and in the second, they possessed an ally, Egypt. The part played by Egypt in these events is of the highest interest to us. The chronicle begins with the year 616 B.C., before which Nabopolassar had already begun to possess himself of Assyrian subject-cities in Northern Akkad and along the course of the Euphrates. In that year his northward course was checked by the arrival of a joint Assyrian-Egyptian army, which however did not succeed in overtaking his retreat. The Egyptians presumably returned home. We do not hear of them again until seven years later, in the year 609, three years after the fall of Nineveh, when they came to the assistance of the hard-pressed Assyrian state, which had until the previous year maintained a precarious existence under its last king at Harran. Sin-shar-ishkun (Sarakos), the last ruler of Nineveh, had perished in the great catastrophe, whether, as tradition said, by self-immolation in the fire that consumed his palace and possessions the chronicle, which is unhappily broken here, can no longer tell us. A certain Ashur-uballit, who was probably the *turtan* or commander-in-chief, to whom Harran was usually entrusted to be governed, succeeded in escaping from Nineveh with a remnant which he ruled at Harran as king of Assyria till the Scythians, aided at least nominally by the Babylonians, took and sacked the city of the moon-god in 610 (an event known to us already from a record of Nabonidus, half-a-century later). Ashur-uballit escaped across the Euphrates and sought the help of Egypt, which was given; and an Assyrian-Egyptian army advanced to the recapture of Harran, which however was not effected, in spite of the defeat and massacre of a Babylonian garrison of Harran, which however was not effected, in spite of the defeat and massacre of a Babylonian garrison (I think probably at Carchemish: they seem to have been thrown down from the castle bluff into the river). Harran was defended successfully, probably by a Scythian garrison, and the chronicle ends when Nabopolassar is advancing to its relief. In the next year, 608, occurred the personal expedition of Pharaoh Necho, in the course of which the quixotic effort of Josiah in favour of the rising star of Babylon was annihilated at Megiddo, and Carchemish was occupied till in 605 Necho was defeated by Nabopolassar and the city fell. Of these events the chronicle does not tell: but we know that it was continued, and should a tablet containing the sequel be discovered we shall have the Babylonian account of them.

Necho probably marched himself in 608 because in the previous year the army that had advanced to Harran was no doubt eventually defeated by Nabopolassar and thrown back across the Euphrates. Ashur-uballit possibly perished, and with him Assyria. When Necho himself came upon the scene it was no longer to help Assyria, which had ceased to exist, but to secure part of the spoil for himself. The earlier advance to bolster up Assyria *in extremis* may, as Mr Gadd is inclined to think, have been dictated by fear of the Scythians (Herodotus tells us how Psammetichus was troubled on account of them), to whom Egypt desired to oppose Assyria as the most convenient buffer. But it is probable that there was another reason. Psammetichus I, who in 616 was still on the throne (not dying till the year of the fall of Harran, two years after Nineveh had gone), was in early days the faithful vassal of Assyria. As a young man he had lived at Nineveh, and he had borne the Assyrian name Nabu-shezib-anni. When he "revolted" in 651 and became pharaoh of Egypt, we hear nothing of any Assyrian protest. It is at least probable that he assumed the kingly dignity of his native land without at any rate any active opposition on the part of Ashurbanipal. The help of Gyges and his "brazen men" may have meant merely the hiring by Psammetichus of Ionian and Carian mercenaries to uphold his regal authority and act as his guards in Egypt, as had been the tradition since the time of the Ramessides and their Shardana. Of actual war we know nothing. Psammetichus may still have regarded himself as in some sort the subject-ally of Assyria, certainly he would purchase Assyrian compliance by the offer of his alliance. And in 616 he was summoned to help his former suzerain, and fulfilled the duty. After the fall of Harran his son Necho could do little else than

attempt to succour the remnant of Assyria, especially since, now that the positions were reversed, Assyria was a suppliant, and there might be a prospect of defeating Babylon and re-establishing the empire of Tuthmosis and Ramesses. The failure at Harrau brought the king himself into the field, apparently with success, for it is probable that the defeat of Josiah was followed by that of Nabopolassar in 608, unless indeed the Babylonian, warned by Megiddo, warily kept aloof for the time until three years later he felt able to strike with success.

In the Egyptian army the brazen men from the west probably bore their part: certainly they did under Necho, when we find at Carchemish unequivocal trace of their presence in the Greek Gorgoneion-shield found by Mr Woolley with clay sealings of Necho, a stamp of Psammetichus I, and other Egyptian objects (WOOLLEY, *Carchemish*, II, 128, pl. 24). The chronicler, who eschews detail, makes no mention of the mercenaries. It is probable that there were others of their kin serving under Nabopolassar, as the brother-in-law of Alkaia the poet did under Nebuchadrezzar.

The chronicle is as jejune in its style as most of the Babylonian chronicles are; even its accounts of triumph are as stereotyped in formula as ever; but in the broken lines that described the fall of Nineveh we can discern something of the horror and terror of the event that moved the prophet Nahum to tremendous declamation and became to the Greeks, in the suicide of Sardanapallos, a signal example of the workings of Nemesis. "The king of Akkad (Nabopolassar) and Kyaxares...he made to cross: by the bank of the Tigris they marched...against Nineveh...they.... From the month of Sivan to the month of Ab three battles (?). A mighty assault they made upon the city, and in the month of Ab, [the...day the city was captured]...a great [havoc] of the chief [men] was made. At that time Sin-shar-ishkun, king of Assyria.... The spoil of the city, a quantity beyond counting, they plundered, and [turned] the city into a mound and a ruin...." So had the Assyrians themselves many times before spoken of other cities. "Woe to the bloody city.....Thy shepherds slumber, O King of Assyria; thy nobles shall dwell in the dust, thy people is scattered upon the mountains, and no man gathereth them. There is no healing of thy hurt; thy wound is grievous; all that hear the bruit of thee shall clap their hands over thee; for upon whom hath not thy wickedness passed continually!" (Nahum iii, 1, 18-19).

Mr Gadd will receive many congratulations on his remarkable discovery, and we have to thank him and the authorities of the British Museum for the speed with which it has been made public.

H. R. HALL.

The Exodus in the Light of Archaeology. By J. S. GRIFFITHS: foreword by the Very Rev. H. WAGE, D.D., Dean of Canterbury. London, 1923. Price 2s. 6d.

We are told in the foreword that this book is "a valuable example of the method in which the problems presented by the Scriptures, and particularly by the Old Testament, should be treated." We are unable to agree, for the book appears to us to be a typical example of how they should not be treated. The first essential in any piece of archaeological research is to separate established fact from mere hypothesis, yet for the author they appear to be indistinguishable. The same old fancies and fallacies are served up to us once again, and with the same old sauces. The identifications of Avaris with Tell el-Yahûdyah and of Raames-Rameses with Tell er-Retâbah, for neither of which there is a single cogent argument, appear as a matter of course. The mythical "store-chambers" (in reality nothing more than the foundations of a fortress), the bricks laid in mortar, "contrary to the usual Egyptian method of brick-work," the straw and the stubble, all are there. The effete identification of Succoth with *Tkw* is never questioned, and the inscription of Baba is ascribed to the reign of Sakenenrê III, an ascription based on a simple confusion of names. The Merenptah stela occupies, as may be imagined, a great place in the volume, and the writer falls into an old snare when he decides that the word Israel in this inscription, being determined not by the land sign but by the determinative meaning "men" (sic), fits "a non-territorial people and may well be used of Israel 'wandering' in the wilderness." From these and other indications it is shown that the Exodus took place in the second year of Merenptah. The route of the Exodus appears to have no difficulties for the author. He seems blissfully ignorant of the fact that the localizing of Mt. Sinai in what is now known as the Sinai Peninsula dates only from about the Fourth Century A.D., nor does he think it worth while to inform his reader that the piece of water referred to by him as the Red Sea (on the authority of the Greek Septuagint) appears in the Hebrew version as the Sea of Reeds.

The attitude of the author towards his subject is, however, most patently revealed in the Additional Note on p. 79. It is clear that Gardiner's articles on Delta geography, the most important contribution

made from the Egyptian side to Old Testament study in the last thirty years, appeared while Mr Griffiths was at work on his book and disconcerted him. Instead of facing them, however, he takes refuge in the statement that they "have for the most part been refuted in advance" (whatever this collocation of words may mean) by Naville and Petrie. With regard to Naville's identification of Pithom with Tell el-Mas-khūtah, questioned by Gardiner, he states that it is "based on a careful and painstaking study of the hieroglyphics and of the Roman inscriptions. The testimony of these is decisive." With the last six words we heartily agree. Had the author, however, closely studied Gardiner's articles he would have seen that the new view is based on a careful and painstaking re-study of these same hieroglyphics and Roman inscriptions. It is precisely because these articles are based throughout on a minute study of what the Egyptians themselves wrote by a scholar of the first order that they are epoch-making. In any case the identification of Pithom is a minor matter on which Gardiner himself lays little stress; the really important point for biblical study is his proposed identification of Raamses with the site of the later Pelusium, a suggestion to which the author does not even refer.

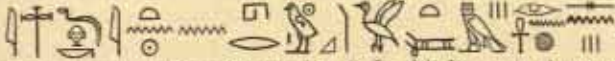
This book is intended to vindicate the Old Testament narrative. It fails in its task, and it fails not because the Old Testament narrative is false, but because the evidence which would prove it correct is not at present forthcoming in Egypt. This being so the only honest procedure is to admit it, and not to bodge up a vindication by elevating mere guesses into the region of established facts and by quietly suppressing or distorting such ascertained facts as prove recalcitrant. He who does this merely damages in the eyes of the intelligent the cause which he sets out to defend.


T. E. PEET.

Tutankhamen, Amenism, Atenism, and Egyptian Monotheism. By Sir E. A. WALLIS BUDGE, Litt.D., D.Litt. Hopkinson, 1923.

Tutankhamen and the Discovery of his Tomb. By G. ELLIOT SMITH, F.R.S. London, Routledge, 1923.

The discovery of the tomb of Tutankhamūn has caused a very general demand for a small book, written by an Egyptologist, which shall give in a short compass all that is known (apart from the tomb and its contents) of the king whose sepulchral state has been so marvellously preserved practically intact to our own days, his relation to his extraordinary predecessor Akhenaten the heretic, and the peculiar monotheistic religious tenets of the latter which Tutankhamūn abandoned to return to the polytheism of his ancestors. This demand Sir Ernest Budge wishes to supply in the book now before us. His knowledge of the byways of Egyptian religion has enabled him to give us an interesting discussion of Atenism and its native Egyptian origins, free from the excitable comment which so remarkable a development of ancient religious thought has perhaps naturally caused. There are no "dithyrambs" in the book. It is a dispassionate description of the facts as seen from the author's point of view. He gives us new translations of the famous hymns to the Aten of which we have heard so much of late years from Prof. Breasted and Mr Weigall side by side with the Egyptian texts provided by the painstaking and accurate copies made by Mr de Garis Davies. Sir Ernest's views of this religious development, so important in the history of human thought, invite comment and give rise to various reflexions.

A convenient publication of the fine and well-known stele of Hor and Suti in the British Museum (No. 475) is given by him. This is remarkable as a monument of the development of the native Aten-worship in the time of Amenophis III; in it Amūn is addressed in his solar aspect as identical with Horakhti, Khepri, and the Aten, , "hail to thee, Sun-disk of the Day, creating mortals and making them to live." In this hymn to Amūn we already hear the *leit-motif* of the hymns of Akhenaten, and the fact should bid us beware of attributing too great an originality to the heresiarch personally: after all, he may have been merely ringing the changes on an old theme, to which he contributed possibly but little of his own invention. And this we take it is the main idea of Sir Ernest Budge's book, namely, that we should regard Akhenaten with tempered enthusiasm and with a due sense of proportion.

In the stele of Hor and Suti all the ordinary deities of the dead are addressed in the  formula, including the deified queen Nefretiri, whereas there was little room for them in the developed Aten-heresy of Akhenaten, though unofficially no doubt the common people venerated Osiris, and at El-Amarnah Prof. Peet found interesting proof of the worship of Shed and Isis if not actually at the end of

Akhenaten's reign, as is quite possible, at any rate during the years immediately following it. The question of the beliefs of Akhenaten and his followers with regard to the state of the dead and their attitude to the Osiris-cult is a very interesting one. The form of the tomb was not modified, and their owners, Meryre^c the high-priest and the others, were presumably mummified and buried in them, as the king himself was and as his father had been. Yet we find in them none of the conventional representations, and it is probable that, as Sir Ernest Budge suggests (p. 95), the eschatological implications of the old religion were entirely rejected by the king's teaching. On the subject of survivals of the old religion under Atenism Prof. Peet's recent article "The Problem of Akhenaten," in the *Journal of the Manchester Egyptian and Oriental Society*, ix (1921), 39 ff., criticizing the views of Dr Mercer, should be read.

It was originally suggested by Maspero, we believe, that the paternal grandmother of Akhenaten, the queen of Tuthmosis IV, was a Mitannian princess, and this view has been adopted in their histories by both Budge and Breasted. I have suggested (*Anc. Hist. Near East*, 298, 304) that Iranian ideas derived from Mitanni may have combined with the Heliopolitan Aten-cult in the minds of Amenophis III and Tiye, and produced the peculiar explosion, almost Zoroastrian in character, of truth-worship (to which Petrie first drew attention) in the mind of their son. In this connexion it is interesting to find that while Prof. Breasted compares one of the Aten-hymns to the 104th Psalm, Sir Ernest makes the suggestion that there are resemblances between their phraseology and that of the Rig-Veda. We remember that Mitanni had an Indo-Iranian element in its population which venerated the Indian gods Mitra, Varuna, Indra, and the Nasātya-twins or Asvins, and that the neighbouring Kassites had a storm-god Maruttash as well as a Buriyash (=Boreas), and worshipped Suriyash the sun. "A very interesting characteristic of the hymns to Aten," says Sir Ernest, "is the writer's insistence on the beauty and power of light, and it may be permitted to wonder if this is not due to Mitannian influence, and the penetration into Egypt of Aryan ideas concerning Mitra, Varuna, and Sūrya or Savitri, the Sun-god....." "As the Vivifier and Quickener, he raises his long arms of gold in the morning, rouses all beings from their slumber, infuses energy into them and buries them in sleep in the evening." Although the Vedic hymns must be much later than the time of Akhenaten, yet people who worshipped Vedic gods must have had Vedic hymns, and Savitri's "long arms of gold" are certainly much like the Aten-rays ending in hands. Sir Ernest Budge sees resemblances to Atenist phraseology also in hymns to Varuna, the god of heaven (Ouranos), but notes that the Vedic idea of prayer for forgiveness of sins is absent from Akhenaten's hymns, which certainly make no mention of morals or responsibility or anything but a cat-like enjoyment of the sun and of the fact that it is good to be alive; there is certainly nothing more spiritual in them than a spirit of gratitude to the Aten (or the god behind the Aten) for the fact that one is alive. In some aspects indeed Akhenaten appears as a simple materialist, so that we need not be surprised at the curious conjunction of the absence of moral sanctions from his creed and the simultaneous Darius-like love of the truth and hatred of "the lie" that was one of his most marked characteristics, and (as I believe Breasted was the first to point out: *Hist. Eg.* 378; cf. also my *Ancient History of the Near East*, 304) was probably the motive of the stark realism that is characteristic of the art of his time¹. His enthusiasm for truth and what was right was not really religious, but scientific. His heresy was a philosophic and scientific revolt against religion: he was a philosopher-king, a scientific fanatic. He was a little mad, but he was the first example of the scientific mind. If he had not been a little mad, he would not have dared,—even he, the king—to defy Amūn and his priests and put his views into practice. The mental instability was no doubt connected with his disease (see the review of Prof. Elliot Smith's book, below), and both perhaps with his mixed blood: Mrs Griffith has now suggested (in the last number of the *Journal*) that Yuasa and Tuyu, the parents of Tiye, were possibly Hittites: this might be so as regards Yuasa, though his name does not look at all Hittite, nor do any of the other names concerned. Hittite influences, half Asianic, half West Indo-European, may have been active in the mind of Akhenaten. Minoan influences in the direction of unfettered thought, especially in artistic matters, cannot be left out of account. But the East Indo-European or Aryan (Indo-Iranian) influence from Mitanni is most likely, and was probably prepotent.

Among the illustrations we notice one of the famous new painted limestone head of Queen Nefertiti from El-Amarnah at Berlin; the well-known wall-painting (not bas-relief, Pl. X) of the two princesses, found by Petrie, in the Ashmolean; the broken stele with the portrait of Akhenaten in the British Museum (No. 24431) which has already been published more than once; and the fragmentary head of the king in

¹ Schaefer (quoted by Peet, *Manch. E. and O. Journ.*, loc. cit., 48) has also published recently the same view, originally expressed by Breasted nearly twenty years ago.

calcareous limestone also in the British Museum (No. 13366), which is now published for the first time, we believe. Other monuments and objects of the time are also illustrated such as the "wild cattle" scarab of Amenophis III, formerly in the Macgregor Collection and now in the Museum (No. 55585; it commemorates the royal slaughter of 76 wild cattle in a battue that took place somewhere near Keneh, at the mouth of the Wādī Hammāmāt, in the second year of his reign), or the beautiful vari-coloured glass vase in the form of a fish that was found by Prof. Peet two years ago at El-Amarnah. There is little of Tutankhamūn's own, for until the discovery of the tomb but little was known. We should have preferred a finer line in some of the drawings of the figures of the gods. Sir Ernest gives the hieroglyphic originals of most of the names of persons and places mentioned, and generally emphasizes the Egyptological side of the subject.

Prof. Elliot Smith's little book on Tutankhamūn is written from a point of view different from that of Sir Ernest Budge. He is not so much concerned with the Egyptological or religious point of view, except in so far as they touch upon anthropological matters that interest him, such as the means of "getting to heaven" supplied by the couches in the form of the Mother-cow and her variant the hippopotamus Thoutis, on which he writes an interesting chapter. The rest of the book is a short illustrated popular account of Tutankhamūn, his times, and his tomb. It bears marks of having been written and issued in haste. Though the illustrations on the whole are good, the coloured frontispiece, depicting Huy before Tutankhamūn, is very poor and in the copy before me the colour-printing does not register. The Berlin portrait bust of Nefretiti is described as of painted wood (no. 15), whereas Sir Ernest Budge states correctly that it is of painted limestone. The misspelling "Smenkhara" (for Smenkhkara or Smenkhkeré; Petrie's reading: Budge and Breasted prefer the reading Saakara or Sakeré) is evidently not a printer's error, as it occurs several times. And Prof. Elliot Smith should not have allowed his printer to divide the name of Tutankhamūn as "Tutan-khamen" (p. 69); this really reminds one too much of the popular perversion "Tooting Common" (though it is true that the correct division is likely to be perverted, as it has been to my knowledge in the mouth of an old lady of the working class, as "this here Toothache-Amen," pronounced like the end of a prayer). On the same p. 69 Mr Arthur Weigall is stated to have "discovered" the tomb "of Tiy" (or Akhenaten) at Thebes, when as Chief Inspector of Antiquities for Upper Egypt he "was supervising the excavations endowed by the late Mr Theodore M. Davis." We believe that no injustice is done to Mr Weigall if the late Mr E. R. Ayrton, who was in actual charge of the work, is also mentioned as the discoverer and excavator of the tomb, under the supervision of Mr Weigall in his before-mentioned capacity as Government inspector under the peculiar conditions attached to private work in the Valley of the Kings. Mr Ayrton's name at any rate cannot be omitted, and only Mr Weigall's be mentioned.

What Prof. Elliot Smith has to say regarding the mummies of the period he says with admitted authority, and it is interesting to find that in the light of Prof. Sethe's recent memoir demanding an age of thirty-six years for Akhenaten at his death Prof. Smith is able to revise his former opinion of the age of the heretic king, derived from study of the remains found in the Davis tomb, as not more than twenty-six at death. He has now come to the conclusion that "the peculiar features of Akhenaten's head and face, the grotesque form assumed by his legs and body, no less than the eccentricities of his behaviour, and his pathetic failure as a statesman, will probably be shown to be due to his being the subject of a rare disorder, only recently recognized by physicians, who have given it the cumbersome name *Dystocia adiposogenitalis*. One of the effects of this condition is to delay the process of the consolidation of the bones. Studying the history of modern instances of this affection the possibility suggests itself that Akhenaten might well have attained the age of thirty or even thirty-six years, although his bones are in a condition which in the normal individual is appropriate to the years twenty-two to twenty-six. It is tempting to speculate on the vast influence on the history of the world, not merely the political fate of Egypt and Syria in the fourteenth century B.C., but the religious conceptions of Palestine and the whole world for all time, for which the illness of this pacifist poet may have been largely responsible" (p. 84).

In this connexion Prof. Elliot Smith takes the opportunity to castigate very justly an extraordinary French article on Akhenaten's disease, entitled "*Le Pharaon Aménophis IV, sa mentalité. Fut-il atteint de Lipodystrophie Progressive?*" published by Drs M. Ameline and P. Quercy in the *Revue Neurologique* for 1920, which appears to have been written in complete ignorance of Prof. Elliot Smith's examination of the king's remains and its publication in the *Catalogue général du Musée du Caire* in 1912, and is based "wholly upon the pictures of Akhenaten and the history of his achievements" (p. 87). Indeed, the French physicians actually state not only that Tiy's mummy was found (which is not the fact) but also that the

ornaments of the mummy of Akhenaten "empêchent naturellement d'examiner le corps du pharaon aux rayons X et, a fortiori, d'en pratiquer l'autopsie"; all of which is purely imaginary! However, whether Akhenaten suffered from *Dystocia adiposo-genitalis* or from progressive lipodystrophy (and we presume it was the former), there is no doubt that he was a pathological specimen, and owed his genius or crankiness (however we may be inclined to regard it) as much to this fact as to his mixed blood, to which I have already drawn attention. The mixed blood, whether Egypto-Iranian or Egyptian-Iranian-Hittite, no doubt combined with physical disease to produce the strange mind of Akhenaten, which seized upon a native Egyptian religious development to dominate Egypt as if by a well-intentioned and sometimes beautiful nightmare, till the ancestral way of the gods was restored by Tutankhamun.

H. R. HALL.

"And in the tomb were found—" *Plays and Portraits of old Egypt*. By TERENCE GRAY with illustrations by W. M. BRUNTON. Cambridge: W. Heffer & Sons, Ltd. 1923.

A few years ago Mr Gray made an innovation in Egyptological literature by rendering an episode of Egyptian history in dramatic form. In this he succeeded well and we now have before us a series of short plays embodying the life and times of the Old, Middle and New Kingdoms. The author, we are glad to see, is scrupulously careful in his introduction to distinguish between what is founded on ascertained fact and what belongs merely to the realm of conjecture and probability. Thus the ingredients of Part IV, which deals with the expulsion of the Hyksos under Sekneure, belong almost wholly to conjecture, although in more than one work the facts have been stated with the same assurance as those for which definite proof exists.

Mr Gray, as in his former book, still makes us wince at the unfamiliar spellings of his heroes' names. In spite of the explanation which he gives in the introduction (pp. xvi ff.) we cannot reconcile ourselves to Osyri, Ysit, Yamoun, Yankh-horu and Riyamosis—to take only a few instances.

The last section of the book presents us with the Love Poetry of Egypt in a new guise. The author explains that he has "used the translations of scholars and compared them word by word with the hieroglyph transcript of the original hieratic, and set them word by word against the 'dictionary' meanings of each word. Thus also I have sought to follow the grammatical construction of each sentence. Taking the result of this as a basis, and retaining each idiom, I have sought to set forth the poems in the simple rhythmical form that appears to be the character of the original." This is a perilous venture and although love-poetry and scientific philology are an ill-assorted couple, our present knowledge of the language does not yet justify us in dissociating them: whilst the result of Mr Gray's treatment is aesthetically pleasing he will have to settle accounts with the philologist on many points.

The book, however, is an honest and painstaking attempt to bring to life much of the human aspect of Egyptology, and the author is to be congratulated upon the result.

W. R. DAWSON.

Facsimiles of Egyptian Hieratic Papyri in the British Museum with descriptions, summaries of contents, &c., by E. A. WALLIS BUDGE, Kt., M.A., Litt.D., Keeper of the Egyptian and Assyrian Antiquities in the British Museum. Printed by order of the Trustees, 1923. Folio. Price £8. 10s. 0d. nett.

After an interval of thirteen years, the Trustees of the British Museum have resumed the publication of their hieratic papyri and a stately volume of 128 folio plates edited by Sir Ernest Budge has appeared to supplement the first series issued by him in 1910. The richness of the British Museum collection of hieratic manuscripts is proverbial, and it is a matter for general satisfaction that they are being made available to scholars. The Trustees were among the pioneers of hieratic publications, and the admirable lithographic facsimiles of the *Sallier* and *Anastasi* papyri by Netherclift, an undertaking which began as long ago as 1841, have rendered sovereign service to the development of Egyptology. It is sufficient to refer to the opportunities which the *Select Papyri* gave to Goodwin, Chabas, Maspero and others to produce their famous works of remarkable insight which are among the most solid of the foundation stones of our science. To the Egyptologists of the present generation the *Select Papyri* are rare and costly volumes, and the republication of the four *Sallier* papyri which originally appeared in that work is therefore very welcome, especially as the inaccuracies, few as they were, in Netherclift's plates can now be controlled by the photographic plates in the new work. The volume contains eight papyri which we will refer to in the sequel by the numbers I—VIII.

The execution of the collotype plates is admirable, and where the reading is not clear it is due to the paleness of the ink or to the darkness of the background: the Papyri Nos. 10,474 and 10,051, although on the whole quite readable, are the least satisfactory. It is a defect in collotype reproduction, not yet completely overcome, that the texture of the papyrus, particularly when at all crumpled or uneven, comes out too prominently and sometimes obscures the recognition of the smaller signs.

The plates are preceded by a preface and a general description, together with a full transcription and translation of the first papyrus. (No. 10,474.) The statement in the preface that "the greater number of which (*i.e.* the papyri here published) were written during the reign of Rameses II" is somewhat surprising, for on palaeographical grounds it is difficult to place any of them in this reign.

I. From the script of No. 10,474 it is quite evident that that manuscript cannot be earlier than the XXist Dynasty, and the statement on p. 9 that its owner "seems to have been one Nekht, a military scribe" is accordingly untenable. This papyrus was obtained by Sir Ernest Budge in 1888 with the funerary papyrus of Nekht, but the latter belongs to the class of richly coloured and ornamented manuscripts which were common in the XIXth Dynasty, and has close affinities with the Papyri of *Any, Henäfer, &c.*, and is earlier than the hieratic text we are now considering. Papyrus No. 10,474 is inscribed on both sides. The *verso*, which contains a calendar of lucky and unlucky days and some short hymns, was published in 1910¹. The *recto*, which is now reproduced for the first time², is occupied by 27 pages or columns of a single work of the large class of *seboyet* or "Instructions" of which the Prisse and Petrograd papyri are conspicuous examples. A hieroglyphic transcript of this papyrus is given on pages 41 to 51, but its utility is sacrificed to the method of printing it on separate sheets which entails constant turning of leaves to and fro: it is unfortunate that the usage, which is now general, of printing the hieroglyphic transcript on the pages opposite to the hieratic text, has not been resorted to.

II. The second papyrus (*Lansing*, No. 9994) was acquired by Dr Birch in 1886 and is now published for the first time. This likewise is a literary text, written in a bold florid hand, which may be assigned to the XXth Dynasty and which is similar to that of some of the Turin papyri of Rameses IV. The theme is the oft-recurring comparison of the scribe's lot with that of other callings, but the present text does not appear to be a duplicate of any already known. This manuscript is doubtless a school-book. On the *verso* is a model letter with the usual elaborate preamble, and some drawings.

III. The *Salt Magical Papyrus* (No. 10,051) has long been known from the courageous translation made by Birch in 1876³, and in 1916 Turaieff published the text and photographs of some of the magical pictures⁴, but neither of these works is mentioned by Sir Ernest Budge. The papyrus deals with a number of episodes in the legendary history of the gods and deserves careful study in connection with the stories of the *Destruction of Mankind* and of Isis and Rê⁵. We may note in passing that allusion to a fact well known in folk-lore, namely the growth of trees and plants from shed blood, occurs in page 2, lines 2 and 3. It is stated that blood fell from the nose of Geb upon the ground, it grew there and the cedar-tree came into being and cedar-oil from its sap. A parallel may be quoted from *D'Orbiney* 16, 10 where the blood from the neck of the slaughtered bull, the reincarnation of Bata, gave rise to two trees, which sprang up on the spot where it fell. This papyrus is of Saite or later date and is well written in narrow pages of 9—10 lines each between horizontal rulings above and below. It contains a number of magical drawings of great interest and several columns of linear hieroglyphs of the so-called "enigmatic" type.

IV. We now reach the important manuscript *Harris 500* (No. 10,060). Those of us who have hitherto used Maspero's facsimile⁶ will find with satisfaction that its general accuracy is vindicated by the collotype, although the original is more legible than Maspero's copy would lead us to expect. With regard to its age, Sir Ernest Budge states that it "belongs to the period of the XXth or XXist Dynasty" (page 23). Its position has been far more clearly defined by Möller in an important paper to which reference should have been made⁷.

¹ *Egyptian Hieratic Papyri in the British Museum* [First Series], 1910, Plates XXI—XXXIII.

² A general account of the papyrus, interspersed with translations, was published by Sir ERNEST BUDGE in the *Recueil Champollion*, Paris, 1922, pp. 431 and 446, and a photograph of one page in his *Nile and Tigris*, 1920, plate facing p. 337.

³ *Records of the Past* (First Series), vi, 113—126.

⁴ *Proceedings of the Russian Archaeological Society* (classical section), ix, 231—241.

⁵ *Études Égyptiennes*, 1.

⁶ *Zeitschr. f. äg. Spr.*, LVI (1920), 42, Plates 1 and 2.

V. *Sallier* No. 1 (No. 10,185) is now exhibited in the sixth Egyptian Room in the Museum and is mounted on paper and rolled up. It is a pity that advantage was not taken of the occasion of its republication to have it properly mounted under glass and the misplaced fragments restored to their proper places. In the introduction (p. 26) the papyrus is said to be "written under the XIXth or XXth Dynasty." This vague dating is again given without resort to the valuable palaeographic data of Möller, and to the fact that the papyrus itself bears the cartouche of Menepthah and must be dated to the tenth year of that king. Nor is any indication given that this and other papyri are school copies. The writer Pentawere (Pentaurt) is described as a "Royal Scribe" (on each of the plates) and as "the author of the famous poem on the capture of Kadesh and the Victory of the Egyptians over the Hittites" (on p. 27). If a modern schoolmaster sets Smith minor to copy a passage of *The Charge of the Light Brigade*, Smith may expect to go down to posterity as the author of the poem! Sir Ernest Budge contradicts his own statement on p. 32 where he speaks of *Sallier III* and "the royal scribe Pentaurt, to whom the authorship of the poem is commonly, but wrongly, attributed." The date which accompanies the heading of the collection of model letters is stated on p. 27 to be "the tenth year of Rameses II." He has evidently mistaken the cartouche of that king in the place-name *Pi-Ramesse* for the cartouche of a regnal date, in spite of the fact that the cartouche of Menepthah occurs further on in the papyrus (page 8, line 8). The descriptions of the model letters (p. 27) are not always easy to follow. The first and second letters of Sir Ernest Budge appear to be but one, the first "letter" being merely the preamble to the body of the text which is a comparison of the scribe with the soldier and of which several duplicates are known, the principal being *Anastasi V*, 10, 3—11, 1. The next letter (3, 11—4, 5) deals with farm produce and live-stock, which is followed by a report upon the upkeep and condition of an estate (4, 5—5, 4). The letter, 5, 4—11, is on performing one's duty and this is followed by the comparison of the scribe with the field-labourer (6, 1—9 = *Anast. V*, 15, 6—17, 3). The profession of the scribe is again compared with other callings in the next letter (6, 9—7, 9. Duplicate of *Anastasi II*, 6, 7—7, 7). A hymn to Thoth follows (8, 2—6) similar to those in *Anastasi III* and *V*, and an eulogy of Menepthah (8, 7—9, 1); an official letter relating to the king's horses (9, 1—9) finally gives place to another very favourite topic—the warning to an idle scribe (9, 9—end). A fuller version of this letter is to be found in *Anastasi IV*, 11, 8—12, 5. This duplicate text, the only one referred to by Sir Ernest Budge, is called, apparently by a misprint "Papyrus *Anastasi X*" (p. 27).

VI. In the description of *Papyrus Sallier II* (pp. 27—28) again no reference is made to the fact that it is a school-copy, but it is said that the pupil Ennene, who copied the *Instructions of Amenemhät*, and several other known papyri, "may have been the author of the work!" Ennene is known to have lived in the reign of Sety II, and yet the possibility is suggested that he may have been the author of a book which had acquired considerable textual corruption before the beginning of the XVIIIth Dynasty! Of the *Satire des Métiers* Sir Ernest Budge admits that Ennene "can only have been its editor or redactor" (p. 28). The duplicate texts in the British Museum, *Anastasi VII* and *Ostrakon 5638a*, are mentioned but again no reference is made to the fact that many other duplicates of parts of the text are known and that the composition must have been a favourite one in the temple schools of the New Kingdom. The same may be said of the Hymn to the Nile (p. 31) where *Anastasi VII* is the only duplicate named, whereas there are two others in Turin, the Golenischeff ostrakon and a number of fragments from the Ramesseum.

VII. Little need be said as to *Sallier III* which is the poetical account of the victory of Rameses II. The statement on page 32 that the date in 11, 9, namely the ninth year of Rameses II, is the date of the writing of the manuscript by Pentawere (whom, as we have already shown, lived under Menepthah) needs reconsideration. The text does not state that the *Sallier* copy was written in that year, and the date is obviously that of the prototype, written four years after the events narrated, from which Pentawere copied his version.

VIII. No mention whatever is made by Sir Ernest Budge of the texts written on the verso of *Sallier IV*, which like *Sallier I, II* and *III*, is also a school-book. On the back of the very corrupt text of the Calendar, which occupies the whole of the recto, are various texts and jottings which are of considerable interest.

This volume of plates is, however, a most welcome addition of hieratic material, and it is much to be hoped that it will be followed by others, for the British Museum stock of papyri is almost inexhaustible. The four judicial papyri of the *Abbott* and *Mayer* series are clamouring for study, likewise the XXth Dynasty letters and many others.

Von Aegyptischer Kunst, besonders die Zeichenkunst. By HEINRICH SCHAEFER. Second greatly enlarged edition. Leipzig: J. C. Hinrichs, 1922. Pp. xii+308. Fifty-one plates and over two hundred illustrations.

After the long review of Schaefer's work which appeared in this Journal a few months back, it must suffice if I call attention to the appearance already of a revised and enlarged edition in a single volume, in which the author, with a magnanimity which is only too rare, has made a note of friendly criticisms even when he is unable to admit their validity. This generosity is twice blessed; for there could be no better proof of the single-mindedness of the author and the objective value of his work. With even increased heartiness we commend the new edition to one and all.

N. DE G. DAVIES.

Aegypten und aegyptisches Leben im Altertum. By ADOLPH ERMAN, revised by HERMANN RANKE, Tübingen, 1923.

This revised edition of Professor Erman's classic work on the Ancient Egyptians brings home to one in a remarkable way how enormous is the mass of material dealing with Ancient Egypt that has been published since 1885, when the first edition appeared, and how great is the progress that has been made during the last thirty years or so in Egyptological research.

Dr Ranke is to be congratulated on the success of his undertaking, which was not to rewrite Erman's *Leben*, but to supplement it and bring it up to date, and, where necessary, correct it in the light of modern knowledge. In view of the mass of material he had to deal with, Dr Ranke must often have found it difficult to make up his mind as to what was to be incorporated and what rejected. This difficulty must have been increased by the fact that, owing to the cost of printing, the size of the book had to be restricted. However, by closer printing, the text of the new edition contains about 45,000 more words than the original work, despite the fact that it consists of only 675 pages against 724 pages of the 1885 publication. Here let it be stated that the type is admirable and most pleasant to read.

The necessary restriction in the size of the new edition has led to the omission of a good many not absolutely essential descriptive passages, which, however, were often very lively and full of human touches, and which, therefore, greatly increased one's enjoyment in reading the book, and incidentally one's appreciation of Egyptian character and institutions.

Every chapter in the new edition displays the results of Dr Ranke's assiduous researches, and some chapters more than others. Among those to be singled out for special praise are Chapters 6 to 11, though it is surprising to find in Chapter 10 that Hans Bonnet's admirable treatise, *Die ägyptische Tracht*, vol. VII, pt. 2, of SETHE's *Untersuchungen*, is never once referred to. Of equal excellence are Chapter 14 on Egyptian learning, Chapter 15 on the literature, and Chapter 19 on commerce.

The whole work is admirably illustrated with 275 outline drawings in the text, the greater number of which are taken from publications that have been issued subsequently to the appearance of the first edition, and there are forty-two plates of, for the most part good, half-tone reproductions of photographs.

The volume came out in parts, and one or two scholars have been heard to comment somewhat adversely on the fact that the illustrations have only a number and descriptive label attached to them, and no mention of the publications from which they have been taken. But it should be pointed out that this apparent oversight is remedied in the list of both outline drawings and plates, a full acknowledgment being made there of the sources from whence the illustrations have been derived.

While still on the subject of the illustrations let it be said that the omission from the newly edited Chapter 1 of the views of different parts of Egypt is a defect (see old edition, pp. 19—25), for they gave the reader such a good idea of the nature of the country. None of the photographs reproduced in the new edition are adequate substitutes.

Chapters 3, 12, and 13, those dealing with the history and religion, are the least satisfactory from the point of view of revision, and the reviewer would like to offer the following criticisms with the idea that, if, as is much to be desired, the work is translated into English, these remarks may be useful and some of the corrections contained therein may be embodied in the English version under Dr Ranke's supervision.

The outline of history in Chapter 3 is too sketchy and is not so interestingly written as is the corresponding chapter in the old edition.

Ranke holds the view (p. 41) that the original home of Egyptian civilization was in the Delta, not in Upper Egypt as was stated in the old edition. But, strange to say, he never refers to Sethe's theory, for

which there is a good deal to be said, that, some time before the First Dynasty, Heliopolis was the capital of a united Egypt,—a theory that has recently found further support in the new fragment of the Palermo Stone, on which are depicted pre-dynastic kings wearing the double diadem.

It is far more strange, however, that no mention is made of the Asiatic invasion during the first intermediate period, despite all the information contained in GARDINER's *Admonitions of an Egyptian Sage* and the new Petrograd papyri¹.

The Middle Kingdom is spoken of as feudal throughout, and nothing is said about the breaking of the power of the local princes by Sesōstris III and Amenemhēt III.

The later Hyksōs Period receives far too little attention. Sekenenrē is not mentioned, nor even Kamōse, despite the important part the *Carnarvon Tablet* represents him as playing in the liberation of Egypt.

Dr Ranke, surely by a slip of the pen, speaks of the Eighteenth Dynasty as coming to an end with Tutankhamūn instead of with Ay (p. 41).

On p. 52 the view is expressed that the adherents of the priestly Twenty-First Dynasty fled to Lower Nubia, where they gained supreme power. Ranke has evidently not seen the published results of Reisner's researches in the Sudan, which show that the kings of the Twenty-Fifth, as of the Twenty-Second, Dynasty were Libyans.

Before setting forth his criticisms of Chapters 12 and 13, the reviewer would like to point out that Ranke accepts the undoubtedly correct view recently expressed by Sethe with regard to the Aten-cult, that the object of Akhenaten's worship was not properly speaking a sun-god, but the actual solar body (das Gestirn der Sonne) itself (p. 297). Ranke also gives the correct rendering of the Aten's official appellation: "He who rejoices in the horizon in his name Shu which is Aten." Very interesting, too, is what he has to say on certain features of the popular religion (Sekhet as the patroness of fishermen; the prayer before setting out on a journey; sacrifice before a voyage; the use of figures of Thouēris) pp. 310 foll.

Ranke complains (pp. 299 foll.) that we know only a mere tithe of the legends directly or indirectly referred to in the religious texts. But in discussing the more important ones that happen to survive, he makes no mention whatever of JUNKER's *Auszug der Hathor Tefnut aus Nubien* and *Onurislegende*, nor yet of SETHE's *Sage vom Sonnenauge*,—some of the most important studies of certain aspects of the Egyptian religion that have yet been written.

The New Kingdom texts which display what we call personal religious feeling—the feeling that a personal relationship exists between the individual and God—are too briefly dealt with (pp. 309 foll.), though this perhaps unavoidable curtailment is somewhat compensated for by the reference to Gunn's admirable article on the subject². But no mention is made of the occurrences in certain Middle Kingdom texts of similar ideas about God,—that he loves and cares for all his creatures³ and that he is "the herdsman of all men."

It is much to be regretted that the beautiful hymn to Thōth, which appears at this juncture in the old edition, has been omitted,—a great loss.

The description of the temple liturgy (pp. 312 foll.) is particularly disappointing. Nothing is said about its manifestly Heliopolitan origin, nor is the important fact that the king or chief officiant played the part of Horus and the object of the cult the part of Osiris ever alluded to. Ranke still adheres to the mistaken order of the various episodes of the liturgy adopted by Mariette, making the clothing of the cultus-image precede the lustral washing⁴. The boat-form of the usual shrine is accounted for (p. 314) by supposing that since the Nile was, as it still is, the high road of Egypt, the gods, like men, were thought to need a boat in which to travel. The fact that it was in the first instance an accessory of the Heliopolitan sun-cult (the sun-god was conceived of as traversing the sky in a boat) is overlooked.

No account is given of the numerous ritual acts accompanying the presentation of the food- and drink-offerings, nor of the important part played in various parts of the temple-liturgy by assistant priests, the high-priestess, and musicians of both sexes, though a great deal of information on these points is to be found in GAYET's *Temple de Louxor*, as has been pointed out by Kees in his *Opfertanz des ägyptischen Königs*.

From what is said on p. 329, Ranke does not seem to realise that the columns and statues to be seen

¹ See also GARDINER, *Journal of Egyptian Archaeology*, I, 20—36, 100—106.

² *Journal of Egyptian Archaeology*, III, 81—94.

³ See GARDINER, *Journal of Egyptian Archaeology*, I, 34.

⁴ See *Journal of the Manchester Egyptian and Oriental Society*, 1918—1919, 27—53.

on the right-hand side of fig. 150, represent the colonnades, adorned with statues, which surrounded the forecourt of the particular temple depicted. By the way, it is by no means certain that the relief figured is a representation of part of the great sun-temple at El-Amarnah, as Ranke supposes it to be. The account given of that highly important temple is scanty in the extreme. No attempt is made to describe the sanctuary and subsidiary courts, nor is any mention made of the cult-accessories, such as the ablution-tanks, the numerous side-altars, the lamps, the *benben*-stele, and the statues representing the king and members of his family in the guise of offerers. Finally there is no account whatever of the Aten-temple liturgy.

Ranke has evidently not read the article on the Egyptian Priesthood in Dr HASTINGS' *Encyclopaedia of Religion and Ethics*. Accordingly he still regards the *wnwt nt ht-ntr* as "lay-priests"—whatever that may mean!—whereas that body is simply "the temple-staff" (*wnwt* means "regular service"), which included both *hmw-ntr* (prophets) and *w'ebw* (*w'eb*-priests).

Ranke seems to have abandoned the theory (rightly so the reviewer is disposed to think) that the so-called sun-temples of the Fifth Dynasty were replicas of the great sun-temple at Heliopolis (pp. 320 foll.). They are far more likely—though Ranke does not suggest this—to have been erected by the kings of that period to celebrate their jubilees therein (a large portion of the reliefs preserved depict the various jubilee ceremonies). Their main feature was the great obelisk, the central point of the whole structure. In later times it was deemed sufficient to erect an obelisk or pair of obelisks to commemorate the jubilee, without the rather complicated architectural surroundings. The great altar in the court open to the sky, on which so much stress has been laid, was not merely a feature of these Fifth Dynasty sun-temples or of the Aten-temple at El-Amarnah, but a feature of *all* Egyptian temples.

In his discussion on the nature of the *ka* (p. 345) Ranke does not allude to Gardiner's article in *P.S.B.A.*, xxxvii, 253 foll., which has important bearings on that subject. Again, as Gardiner has pointed out, *op. cit.*, xxxvii, 258, *ba* (*bf*) should be rendered "external manifestation" rather than "soul." Thus, "the *bfw* of Sobk are crocodiles."

Ranke still holds the view that the *ka* dwells in the statue within the *serdab*, for which view there is no foundation whatever, as has been pointed out in *Journal of Egyptian Archaeology*, iii, 250 foll.

On p. 346, when speaking of the importance attached to the recitation of the *h'p d' nswt* formula, Ranke might well have referred to the very interesting version of the address to the passers-by, which bids them repeat that formula, *if they have nothing in their hands*¹.

Ranke implies (p. 354) that no examples have been found of superstructures of Old and Middle Kingdom graves, apart from *maṣṭabahs* and rock-hewn tomb-chapels of the upper classes. But mud-brick superstructures erected above the tomb-shafts of Middle Kingdom officials, and even of evidently quite inferior folk, have been found at Buhen (Wadi Halfa)². In the former case they are all small barrel-vaulted chambers with rectangular ends, and in the latter solid brick structures of the same shape, but of course much smaller. These solid brick imitations of the vaulted chapels of the well-to-do folk are exactly like the superstructures erected above the graves of the modern Egyptians, both Moslems and Copts. Petrie has found somewhat similar superstructures (once coated with whitewash, like the modern examples) over graves of the First Dynasty³.

With regard to what Ranke says on p. 356 on the subject of mummification, it should be pointed out that the custom of preserving the intestines separately from the body goes back to the time of the Old Kingdom. For example, the intestines of Pepi-onkh the Middle, wrapped up in linen bandages and forming bundles which looked exactly like cushions (it is very doubtful if they have been preserved!), were found in his tomb at Meir along with the canopic box (broken up) which once contained them.

When discussing the funerary voyage to Abydos (p. 363), Ranke never refers to Gardiner's important remarks on that subject in his *Tomb of Amenemhêt*, pp. 47 foll.

What are called wicks on p. 366 are more probably candles (see GARDINER, *Tomb of Amenemhêt*, pp. 96 foll.). It will be remembered that holders for candles have recently been found in the tomb of Tutankhamûn.


Surely the hone used for sharpening flint-knives (pp. 366 foll.) would have been made of stone not metal, as it is stated to be.

Finally there are just one or two statements in Chapter 4 which require some modification.

¹ DAVIES-GARDINER, *The Tomb of Amenemhêt*, p. 92, note 1.

² MACIVER-WOOLLEY, *Buhen*, Pls. 77–81.

³ PETRIE, *Tarkhan*, II, Pl. xv, p. 5.

The description of the early royal dress (pp. 64 foll.) is fairly satisfactory, but it is rather bold to derive the -shaped royal loin cloth from the pre-historic "pudenda-sheath." Ranke, of course, does not know of Newberry's brilliant suggestion, for which there is considerable evidence (alas! his paper is still unpublished), as to the real nature of the "whip" or "flail."

The diadem composed of horns and feathers is probably not, as Ranke supposes, that of a divinity, but, as Junker suggests in his *Onurislegende*, and as he has pointed out in much greater detail in the course of a recent conversation with the reviewer, the older pre-dynastic crown of Lower Egypt; hence its combination with the white crown of Upper Egypt (more correctly, Middle Egypt).

On p. 83, despite Gardiner's long-published article, *Some Personifications* (*P.S.B.A.*, xxxviii, 83 foll.), Ranke still speaks of H_u as "the god of taste" instead of "authoritative utterance."

In his account of the part played in politics by the New Kingdom queens, Ranke seems to have ignored all that Sethe in his very important article, *Beiträge zur Geschichte Amenophis IV*, has to say against the theory that Teye "carried on the business of governing for her young son" at the beginning of his reign.

But these are criticisms of what, after all, forms but a small portion of a very large volume. Dr Ranke has admirably carried out his by no means easy task, and has, without question, produced a work of great value, not only to Egyptologists, but to Orientalists as a whole.

AYLWARD M. BLACKMAN.

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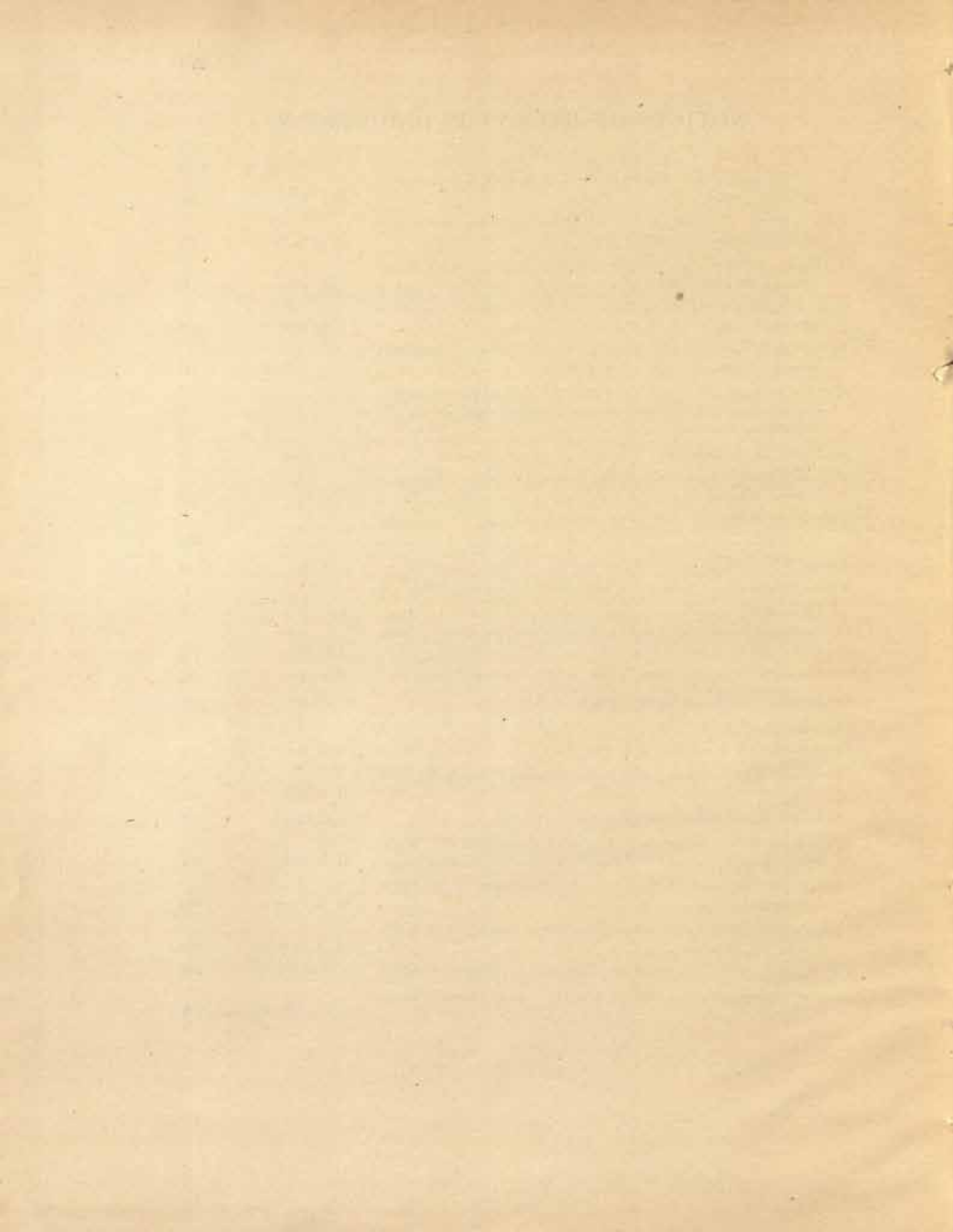
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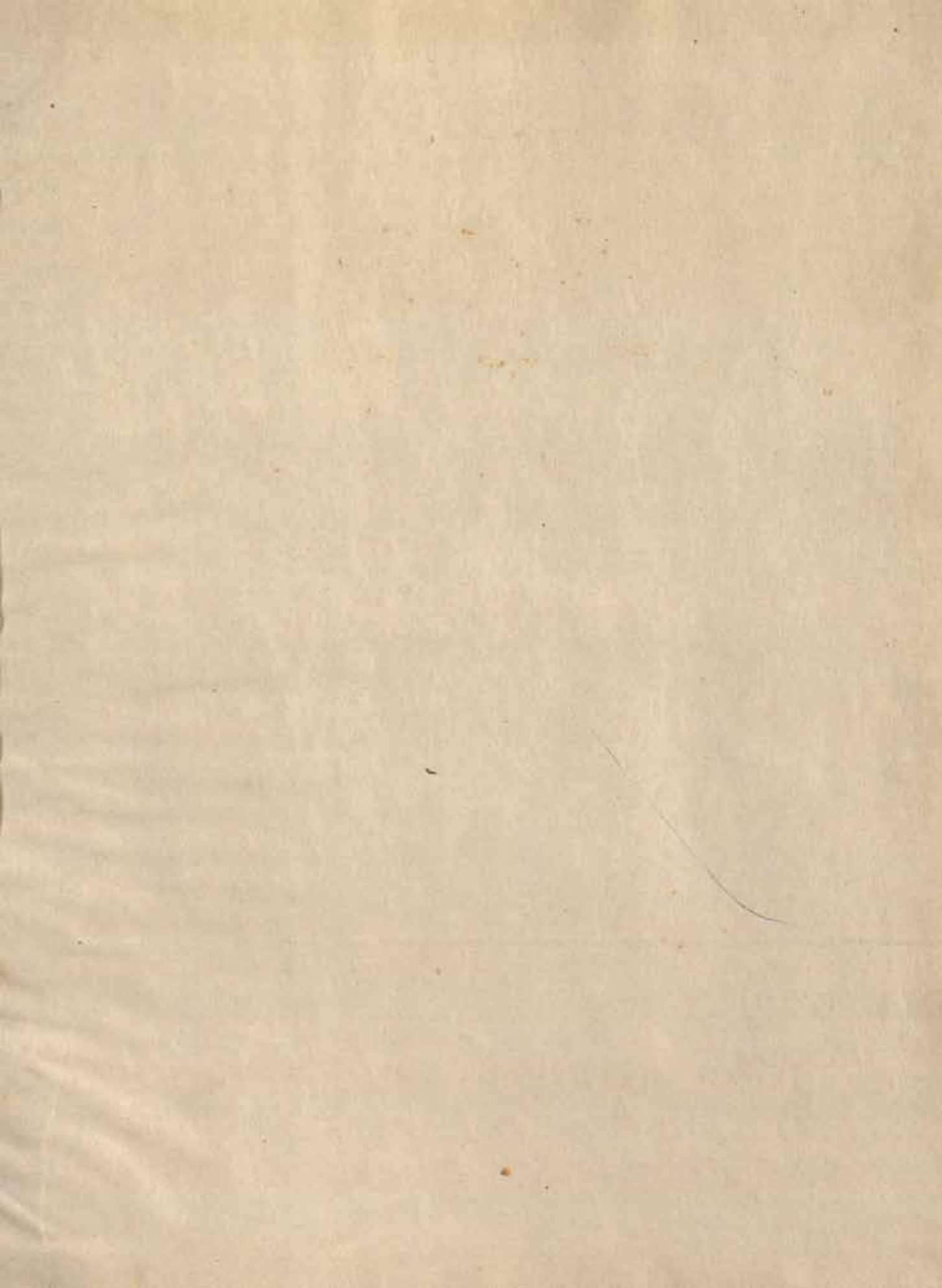
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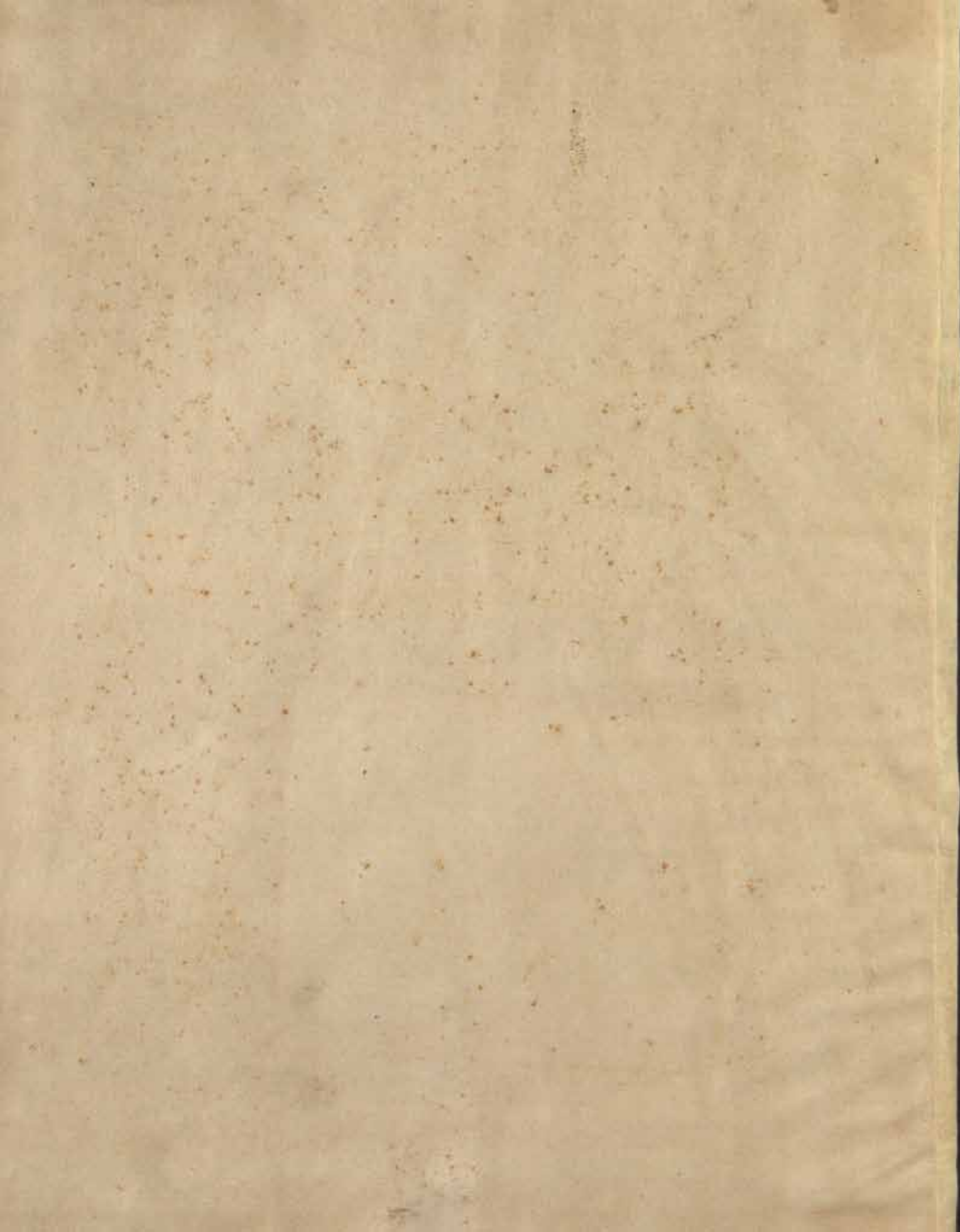
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